MINISTRY OF HOUSING AND LOCAL GOVERNMENT
MINISTRY OF TRANSPORT
SCOTTISH DEVELOPMENT DEPARTMENT
THE WELSH OFFICE



Parking in town centres



LONDON: HER MAJESTY'S STATIONERY OFFICE 7s. 6d. Net

SfB Ac3 • UDC 711-7

MINISTRY OF HOUSING AND LOCAL GOVERNMENT
MINISTRY OF TRANSPORT
SCOTTISH DEVELOPMENT DEPARTMENT
THE WELSH OFFICE

Parking in town centres

CONTENTS

Introduction

1 A comprehensive parking policy

Effect of parking on traffic 10
Effect of parking on environment 14
Need for a comprehensive policy 18
Scope of a parking policy 23
Characteristics of different types of parking facilities 25

2 How to set about it

Main types of parking space 37

Assessing present use and future demand 42

Supply 46

Capacity of streets 47

Allocation of parking space

Operational parking 50

Non-operational parking 52

Shoppers 53

Commuters 54

Residential parking 57

General conclusions 62

3 Methods of providing parking space

On-street parking 64
Less busy areas 66
Where congestion is heaviest 67
Enforcement 71
Relationship between controlled parking schemes and off-street parking 73
Off-street parking 76
Public or private 78
Location and design 82
Off-street parking places for lorries 89

4 Use of car parking standards

Current standards 93
Criticisms 94
Need for review 96
Local standards 99
Contributions by developers 102

Private car parks 91

5 Charges

Appendices

A The central area parking survey and plan

B The preparation of a controlled parking scheme

C Statutory provisions relating to off-street parking places

LONDON: HER MAJESTY'S STATIONERY OFFICE: 1965

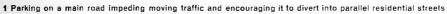
Introduction

- 1. An efficient system of motor traffic is essential to the prosperity of town centres. A great deal of the business and commercial life of the town centre can be served only by motor traffic. Shoppers and other visitors will want, as car ownership grows, to be able to come and go by car, to dispose of their car conveniently, and yet be able to walk and shop in the centre free from the danger, noise and fumes of traffic.
- The planning of the town centre rests to a very large degree upon a well thought out communications and traffic pattern. Nowhere is the integration of land use and transport planning more vital.
- 3. An inefficient traffic system threatens both the prosperity and the amenity of a town centre. Traffic jams cost money; and a centre congested with stationary or slow moving vehicles will lose much of its attraction for all those who come there whether as workers, shoppers or visitors.
- 4. Proper parking provision is an essential element in a good traffic system. In the short run, parking policies and good traffic management are widely recognised as the best means of coping with the present and imminent growth of urban traffic. In the longer term, parking policies are an indispensable part of the land use and transport plan for the town centre.
- 5. The Buchanan Report¹ lays particular emphasis on the immediate importance of parking policy. This Bulletin aims to bring home to urban authorities the urgency of the problem and to explain in practical terms what they can and should do about it. The background is by now familiar. Town centres are already feeling the pressure of traffic. Parking problems are already acute. These are the conditions brought about by 10 million vehicles on the roads. In ten years' time there will be twice as many and in twenty years, three times as many.
- 6. This Bulletin, therefore, urges authorities to adopt comprehensive parking policies for their town centres. This means, first of all, positive action about on-street parking which, if uncontrolled, impedes traffic, is bad for trade, is dangerous and is visually extremely unattractive. It means also a proper provision of off-street parking, and here the key decisions involve the scale of provision, the location of car parks and conditions of use, including charges. The Bulletin explains what factors have to be taken into account in arriving at these key decisions, involving in many cases a balance between conflicting considerations.
- 7. This is an immediate problem but the measures adopted must have an eye also to the future. As time goes on and traffic increases, the parking demand will intensify. The larger the town, the less likely it is that the full demand for parking can be met. This is why it is necessary in the planning of town centres, to make a deliberate choice about the volume of traffic to be catered for, its division between the long term user and the short term visitor, and to relate the provision of car parks to this policy.

- 8. The Government regard the adoption of effective parking policies by local authorities 2 as an essential part of town planning and an important step in securing the best use of road space. The Ministry of Transport will therefore, in considering proposals for classified road grants, have regard to the parking policies being adopted by local authorities.
- 9. The Bulletin is divided into five parts with three Appendices:
- Part I deals with the need for a comprehensive policy and its
- Part 2 gives advice on how to formulate a positive policy
- Part 3 deals with methods of providing parking space
- Part 4 gives advice on the use of car parking standards in development control
- Part 5 deals with charging policies
- Appendix A gives technical advice on central area parking surveys
- Appendix B deals with the preparation of a controlled parking scheme
- Appendix C is an index to statutory provisions relating to offstreet parking places.

'Traffic in Towns', H.M.S.O., 1963.

²The term 'local authority' includes county planning authority where appropriate.





1 A comprehensive parking policy

Effect of King on traffic

- Parking in the town centre affects traffic conditions in several ways. First, on-street parking reduces the traffic capacity of the roads in and approaching the centre. Secondly, the amount and type of parking space provided both on and off the street affects the amount of traffic entering the central area. Finally, the location and layout of parking space affects the movement of traffic within the centre.
- 11. Without control, parking on the street can lead to dangerous traffic conditions, and to the loss of road space needed for moving traffic. Uncontrolled street parking impedes loading and unloading and encourages double banking, leading to serious traffic congestion. Cars are often parked too close together, making it difficult for vehicles to enter or leave the parking spaces; not only difficult but also dangerous for moving traffic and pedestrians.
- 12. Moreover, uncontrolled parking space cannot be allocated to those who should be given priority in the wider interests of the town. Lack of control leads to much of the space being occupied all day by long-term parkers. This sharply reduces the turnover of space which could be better used by perhaps 8 or 10 people parking for short periods. Many, though not all long-term parkers are 'car commuters', i.e. people who drive their cars to and from work at peak periods with no use in between these times
- 13. Parking policy is, therefore, the key to catering adequately for traffic that has to enter the town centre. A comprehensive parking policy requires control of the amount, type, location and use of the parking space provided.

Effect of parking on environment

- 14. Parked vehicles affect the environment of the town centre. Their presence has a sharp impact on its character and on the areas adjoining it. Noise and fumes associated with cars stopping and starting, visual intrusion of vehicles crammed into every available space, vehicles loading and unloading goods on to the pavement in peaks hours; all these debase the quality of the environment.
- 15. The conflict between parking and good environment is most acute where cars are parked on the streets. In the majority of town centres it will probably be necessary to allow some street parking, at least until the area is redeveloped, but the selection of street parking places will need careful thought. It will be for each local authority to decide for itself where the balance between good living and working conditions, and the convenience of the motorists should lie. If authorities are to strike the right balance to suit local circumstances each will have to control street parking according to a clear plan. Advice is given in Appendix B on how this can be done with the minimum inconvenience to motorists and the greatest benefit to the town centre as a whole.

- 16. The location and design of off-street car parks can also have a marked effect on the standards of environment of the areas in which they are located and those which they are intended to serve. Paragraphs 82-88 describe the main factors which should be taken into account.
- 17. The town's parking policy must, therefore, deal with the effect of parking on both traffic and environment. Decisions on the one inevitably affect the other. That is why any approach to parking problems must be comprehensive and its implications for both aspects fully worked out.

Need for a comprehensive policy

- 18. Towns differ; their parking problems differ. Some will have special problems arising from the influx of traffic during a holiday season or on market days. Others may escape the daily surge of early commuter traffic filling the parking space in the town centre but may be faced instead with a demand for it near railway or bus stations. In all towns there will be an increasing demand for the short term parking needs of shoppers and businessmen.
- 19. One thing is clear; if a town does not have a comprehensive and positive policy for parking, or tries to tackle the problem in a half-hearted piecemeal way, the results are likely to be increasing traffic congestion, increasing frustration with streets cluttered with standing cars and increasing violation of traffic laws. The town centre will lose its attraction; property values may deteriorate and trade may be lost to other towns where more effective parking measures are in operation. A comprehensive parking policy is not just desirable in the town's interests; it can have a direct effect on the town's commercial survival.
- 20. Responsibility for a comprehensive parking policy rests with the local authority. It is up to each authority to exercise in a positive and clearly thought out way its powers under the Road Traffic and Planning Acts to control traffic and bring effective parking arrangements into force.
- 21. Each town should have a parking policy which is:
 - Effective in making a real and immediate impact on parking problems. The policy must be supported by continuous and firm enforcement of any parking controls.
- Flexible traffic problems change, new development may transform the pattern of life in large areas; the town centre itself will change to cater for new needs and new circumstances.
- Integrated with a wide range of other measures, with road improvements and traffic management, with public transport policies, with the town's development plan and the town centre map and, where appropriate, with the still wider transportation and redevelopment policies for the town or its catchment area.
- 22. But parking policies are not just an important part of longer term redevelopment plans. They can make a major contribution

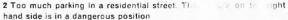
in dealing with the traffic problems in the immediate future. The increase in traffic in the next decade will outstrip the pace of physical reconstruction in towns and cities. If traffic conditions are not to worsen greatly local authorities must re-examine and develop their parking policies as quickly as possible. This means adequate road space must be found for moving traffic with as little congestion as possible. Space for loading and unloading of goods and for picking up and setting down passengers must be provided and space for parking controlled to such extent as may be necessary by time limits and charges.

Scope of a parking policy

- 23. The main measures needed urgently are:
 - (a) to provide for the efficient flow of traffic by deciding:
 - (i) where and when no waiting at all can be allowed (except for picking up and setting down passengers):
 - (ii) where and when waiting can be allowed for loading and unloading of goods only; and
 - (iii) where and when on-street parking can be allowed and, as necessary, controlled by time and price.
 - (b) to provide off-street parking space;
 - (c) to control parking provision in private development in order to:
 - (i) ensure the provision of operational parking space in new development, but
 - (ii) limit non-operational¹ parking space in some classes of private development; and
 - (d) to adopt the appropriate charging policies to ensure efficient use of the parking space made available.
- 24. This does not mean that a uniform policy is appropriate for all towns. The demand for on-street parking in relation to the space available will determine the type and degree of control needed. If demand is not great, nothing more may be needed than waiting restrictions in appropriate places; in the larger town centres, where demand is usually very heavy, time limits will probably have to be enforced by parking meters, with prices regulated to balance demand with supply. Each local authority needs to consider the degree and type of control appropriate to it. Since demand will rise in most towns, there will be a need for frequent review. But irrespective of the control of on-street parking there is a need to provide adequate off-street parking space.

Characteristics of different types of parking facilities

- 25. A comprehensive parking policy needs to be worked out with clear appreciation of the different characteristics of parking facilities. The two main forms of parking on the street and off the street comprise four different types, uncontrolled and controlled parking space on the street, and publicly and privately available parking space off the street. The important characteristics to bear in mind are convenience to the different sorts of user, the extent to which parking space can be controlled in various ways, and its effects on other road users.
- 26. Uncontrolled on-street parking is, of course, the most convenient form for the motorist who manages to secure a place. But, as has already been pointed out, it fails to discriminate between different types of users and it clogs the efficient movement of traffic. Uncontrolled parking is the least efficient form of providing parking space where demand is high.
- 27. Controlled on-street parking space can range from waiting restrictions in part of a single street to the comprehensive control of every part of every street in a wide area. In this context







3 Tidy parking in a residential street

an attract assidential street in a small town filled by commuters'





5 A wide street allowing room for moving traffic and parked vehicles

comprehensive control means deciding where vehicles may or may not park; for what length of time, during what part of the day and at what charge; making regulations and orders and informing drivers accordingly.

- 28. Like uncontrolled parking space, controlled on-street parking space is very convenient to the user. Time limits alone may be sufficient to ensure a turnover so that some space is nearly always available; but often it will also be necessary to levy charges at a level which will ensure this. By applying time limits, priority can be given to parkers according to the length of their stay, e.g. to the short-term and medium-term parkers rather than all-day parkers. Control can also cover the space to be occupied by each parked vehicle, and the availability of space for loading and unloading.
- 29. Public car parks (i.e. car parks available generally for public use whether provided by local authorities or private enterprise) are generally less convenient than on-street parking to users. But they can cater for all types of parkers and are acceptable to those who want to park all day.
- 30. The location and the amount of space can be controlled either directly in the case of car parks provided by a local authority, or through planning control where it is provided by private enterprise. Charges and time limits can also be controlled where the space is publicly provided. If well-sited publicly provided car parks exist in sufficient numbers some degree of control can be achieved over privately provided space, since private enterprise will be influenced in the operation of their car parks by the levels of charges and time limits set by the local authority on the streets and in its car parks.
- 31. Car parks provided in the form of multi-storey or underground garages can be expensive. But by reasonable charges, by incorporating the car park in a building used for other purposes, or by a combination of both, garages can become profitable.
- 32. The amount of capital expenditure incurred by the local authority can be reduced by inviting private enterprise to take part in the construction of garages in partnership with the local authority. This needs to be done, however, in a way that does not prejudice the local authority's parking policy by losing control of a substantial element of it. Decisions on the size and siting of private enterprise car parks must be fitted in to the overall parking plan.
- 33. Private parking space off the street, such as is now commonly provided as a condition of planning consent in new development for use by the occupants, has similar limitations. It is convenient for all parkers who are permitted to use it, but it can be controlled effectively only at the time development takes place. There is no public control over charges or the use of the parking space and car commuters are encouraged to come into the town centre. This can undermine attempts to relate total parking space in the centre to the capacity of the road system serving it.
- 34. Moreover, private parking space is not available to all and may be unused for a good proportion of the week, e.g. evenings and weekends, when parking space may nonetheless be in high demand. In this way it can be more expensive in the use of land and resources than publicly available space. There may be scope however for wider public use of private car parks. Some suggestions are made in paragraph 92.
- 35. This brief description of the characteristics of the four types of parking space underlines the need for comprehensive parking arrangements achieved through control of on-street parking, the provision of publicly available space well sited with a good proportion under the local authority's direct control, coupled with the provision of adequate space for operational parking in new development and the limitation of non-operational parking space in some classes of development.

2 How to set about it

36. In evolving a comprehensive parking policy for their town centres local authorities will need

- (a) to distinguish clearly between operational, non-operational and residential parking space;
- (b) to estimate the present use and future demand for parking space: -existing and foreseeable;
- (c) to assess the supply of space available and the potentialities for increasing it;
- (d) to relate the supply to environment and to the future capacities of existing roads bringing traffic into the centre:
- (c) to settle the amount of parking space to be provided, who should use it and the time limits to be imposed;
- (f) to decide where and by whom it should be provided;
- (g) to estimate the cost of provision;
- (h) to decide what prices to charge for it.

Main types of parking space

- 37. In working out their policies local authorities should at the outset distinguish between the three main types of parking space needed in central areas operational parking spaces, non-operational parking space and residential parking space and decide in the light of local conditions how much of each kind of demand for parking space it will be possible to meet.
- 38. These parking categories should not be confused with the two traffic categories of essential and optional traffic. Traffic may be either 'essential' in the sense that the use of a vehicle is necessary for the carrying on of a trade or business, or 'optional' in the sense that it was not necessary for the journey to be made by car. For instance, shoppers are necessary to the commercial life of town centres, although the extent to which parking space should be provided to enable shoppers to travel by car will vary between different towns.
- 39. Operational parking space is the space required for cars and other vehicles regularly and necessarily involved in the operation of the business of particular buildings. It includes space for commercial vehicles supplying goods to, or delivering them from the premises: space for loading and unloading and for picking up and setting down passengers. It does not include space for vehicles to be stored or serviced except where this is necessary as part of the business being carried on in the building.
- 40. Non-operational parking space is the space required for traffic which does not have to park at particular premises. It divides roughly into two classes long-term parking and short-term. Non-operational long-term parking mainly comprises space for the cars in which workers in the central area come to work. Short-term parking space covers the needs of many shoppers, business callers, sightseers and a host of other requirements arising from visitors who drive to the town centre for many purposes. But the characteristic of all the non-operational parking demand (whether it is for essential or optional traffic) is that the

parking space need not be provided in the procedure builted gs or premises in which the car users' business lies.

41. Residential parking space covers the space for the storage of cars used by people living in the town centre, space for vehicles making deliveries to them and space for cars of people visiting them.

Assessing present use and future demand

- 42. The demand for operational and residential parking space in town centres should be assessed in terms of the needs of individual buildings. It is important, however, that the provision of non-operational parking space should be related to the needs of the central area as a whole. Town centres are a complex mixture of land uses and interlocking activities. The parking demands overlap; one parking space can serve for visits to several buildings or for different types of parking use at different times. It is becoming increasingly likely that in the future, only the smallest towns will be able to provide free and unrestricted parking space for all comers. The demand for non-operational parking space will have to be influenced by setting the prices charged for it at a suitable level.
- 43. As a first step towards evolving their parking policy, local authorities should ascertain the total amount of parking space actually or potentially available and compare this with the use made of existing parking space. Advice on carrying out a central area parking survey is given in Appendix A.
- 44. The future demand for parking space is more difficult to forecast. In the larger towns a more precise assessment of the long-term demand for parking will form part of comprehensive land use/transport surveys. In the meantime the factors to be considered will include some or all of the following, according to local circumstances:
 - (a) The general continuing increase in car ownership.
 - (b) Increasing use of cars for shopping. This is to be expected from changes in the pattern of shopping (such as weekly shopping by car) and as ownership of cars becomes more widespread and more families come to own a second car.
 - (c) Frustrated parking. This is a parking demand that will be revealed progressively as parking facilities are provided and those would-be parkers who are at present discouraged by the difficulty of finding parking spaces find their difficulties removed.
 - (d) Increases in the capacity of roads leading into the town centre enabling more cars to travel to the centre.
 - (e) Public transport availability, prospects and policy.
 - (f) Increases in the floor area of central area uses under redevelopment.
 - (g) Changes in attraction of the area after redevelopment and in the number of potential customers as a result of new industry and/or overspill schemes in the catchment area.

45. Local authorities will be in the best position to decide how much weight is to be given to these factors. But local conditions apart, the continuing increase in car ownership means that the demand for free and convenient parking in town centres would, if mehecked be virtually unlimited in all towns and it neither sold nor should be catered for in full. It then becomes a question as hould have first claim to use the parking space wit should be allocated.

potential parking space in town centres needs the survey should cover the amount of space ease the situation to some extent, but whether it is or is not in a town's best interests to meet a parking demand even at the cost of some congestion, must be a matter for careful thought. A practical example is illustrated in paragraphs 48-50 and Map 12 of Appendix A.

49. Off-street car parks should be sited within convenient reach of the main traffic routes but should not be established at places where traffic cannot come and go without causing traffic jams. So far as possible, accesses should be sited well away from junctions and they should be designed to the same standards as road junctions of equivalent capacity. Direct accesses to car parks from main traffic routes should be provided only if the entry and exit capacities are adequate to cope with peak flows such as

signature with of parked vehicles on environment and helping traffic flow by allowing parking on one side only



available in suitable streets in the town centre and in the adjacent areas, and the space available in publicly owned and privately owned parking places. The local authority will probably have most of this information readily available particularly if plans for the renewal of the town centre are already well advanced.

occur in the morning and evening at car parks which are used extensively by commuters. Possible difficulties may be reduced if additional accesses are provided away from the main route to allow for some dispersion of traffic.

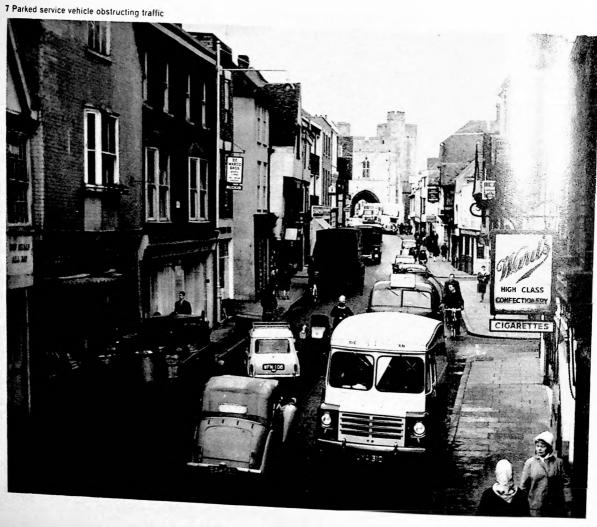
Capacity of streets

47. In general, parking space should not be provided on such a scale that the traffic on its way to and from it exceeds the physical capacity of roads serving or planned for the town centre. Since car commuter traffic is concentrated at peak hours in the morning and evening, the greater the allocation of parking space for commuters, the smaller the total amount of parking space which can be accommodated in the town centre without overloading the road network during peak hours.

48. In practice, relating parking provision to road capacities may involve local authorities in difficult choices. Not all approach roads may be overloaded at the same time, but the addition of any parking space within the town centre is likely to increase the volume of traffic on those which are already congested as well as those with capacity to spare. Traffic management will help to

Allocation of parking space

50. Operational parking requirements should be met to the greatest possible extent if business efficiency in the town centre is not to be impaired. It is essential that adequate operational parking space should be provided in all new development and redevelopment in the town centre, and it is reasonable for the local planning authority to require the developer to provide this as a condition of planning consent. Many local planning authorities already do this, but their conditions do not always distinguish between operational and non-operational parking space. It is important that this distinction should be made clear to ensure adequate provision of parking space for operational purposes. The pros and cons of using planning control to require the provision of non-operational parking space are discussed in more detail in Part 4.



- 51. The provision of operational parking space as a condition of planning consent can, of course, be secured only when development is carried out. In much existing development there is no accommodation at all for operational parking, or the arrangements are often inadequate and will need supplementing if the town centre is to function efficiently. It may be possible to encourage pooling of operational parking space amongst owners or to try to provide vehicular access to land behind existing buildings where redevelopment is not in prospect. Otherwise the authority should consider reserving on-street parking space for operational use at certain times of the day though it may be necessary to prohibit deliveries of goods completely during peak hours.
- 52. Non-operational parking. Some essential traffic (e.g. delivery vehicles) requires operational parking space, some (e.g. sales representatives' cars) can equally well use public parking space. The need for non-operational parking space for essential traffic hould be met by fixing appropriate time limits and charges in public parking places. Time limits and charges are dealt with in fart 5 and Appendix B. But by far the greatest demand for town entre parking space comes from shoppers and commuters and ne key decision which each local authority will have to make is the extent to which it is appropriate and practicable to meet this demand.
- 53. Shoppers are the life-blood of the town centre. It is becoming increasingly evident that towns which do not provide adequate and convenient parking facilities for them and this applies particularly to the Saturday morning shopping expedition will lose them to towns which do. Every town will, therefore, wish to cater for the shopping parking demand to the maximum possible extent. This does not mean, however, that all the parking space for shoppers must be provided within the curtilage, or on the streets near to the shops themselves. It could be provided, as far as possible in public off-street car parks, located within short walking distances of the shops, and controlled by time limits and charges which discriminate in favour of short-term parking. Appendix A illustrates how provision of parking space for shoppers can be worked out in the context of the town centre plan.
- 54. Commuters. In some towns it may be possible to cater for a considerable volume of commuter traffic. Where offices are so sited that the demand for commuter and shopping parking space does not overlap, and where road capacities are capable of taking a heavy load of peak hour traffic, provision can be made for all-day parking both by means of long-period parking meters on the streets and preferably by public off-street car parks. Provision of parking space for commuters within office buildings themselves is likely in many cases to be expensive and lead to traffic congestion. This subject is dealt with in Part 4 where the disadvantages are more fully explained.
- 55. In most towns, shoppers and commuters are competing for the same parking space and in determining priorities for non-operational parking local authorities will probably have no alternative but to choose in favour of shoppers rather than commuters. Commuters have little option but to travel to the town centre by public transport if they cannot come by car. Shoppers and visitors are less committed to the use of public transport and as has already been emphasised, if they cannot park reasonably near to their destination many will go elsewhere to shop or carry out their business and the prosperity of the town will suffer. Parking arrangements favouring short period visitors rather than all-day parkers are therefore likely to be necessary in many towns.
- 56. A comprehensive parking policy may well have the effect of restricting the amount of traffic entering the town centre and increasing the demands made on the public transport system.

- Public transport services may need to be improved and schedules altered to carry those people, mainly commuters, who are unable to travel all the way to the town centre by car. It is most important that there should be the closest co-operation between local authorities and public transport authorities to ensure that the public transport system can cope with the demands made on it.
- 57. Residential parking space may be a minor feature in the total demand for centre parking space at present; but it might well assume an increasing importance in the future as town centres are redeveloped and made more attractive for people to live there.
- 58. The need for space for residents to park or garage their cars should not be overlooked. In all new residential development provided in or adjacent to the town centre there should be a standard provision of one car space per dwelling as recommended in 'Homes for Today and Tomorrow' 1- the report of the Central Housing Advisory Sub-Committee on housing standards. This may well be costly but it would be short-sighted not to make this provision. (It is sometimes argued that if no parking space is provided for residents' cars in town centres residents will be discouraged from owning one and this will all help to reduce traffic in the central area. On the contrary, it is more likely to discourage people from living in the town centre at all).
- 59. Provision of parking space for delivery and service vehicles may also be necessary, particularly in town centres where these vehicles standing for a considerable time outside blocks of flats can cause congestion on busy streets. Space for cars belonging to people visiting residents need not be specially provided in town centres. This counts as non-operational parking.
- 60. As with operational parking the problem of providing sufficient residential parking space is more difficult in existing residential areas which form part of the town centre or are adjacent to it. These older areas are mostly without garages and usually there is no space left where they could be built. Where it is impossible to provide off-street parking space within easy walking distance, local authorities should consider how far they can assist residents by reserving on-street parking space for their use
- 61. In areas where the space on the street which can be allocated for parking exceeds the demand for short and medium-term parking and off-street parking space is inadequate local authorities may wish to arrange for preference to be given to residents in the allocation of the excess on-street parking space. Ways of doing this include long-term meters and authorised free street parking places. The resident, being 'on the spot', has an initial advantage over other would-be users in claiming parking space provided in these ways. Another possible way is by a system of licensing space to individual residents either free or at a charge. A system on these lines is currently being explored by the Ministry of Transport with a view to establishing whether it is a practicable way of giving residents priority. Charging for parking space for residents may be necessary as a means of rationing the available space where demand exceeds supply.

General conclusions

62. From the various stages in evolving a parking policy which have been outlined above, four main points have emerged. First, the total amount of parking space provided should be balanced against the capacity of the streets to handle the traffic it generates. Second, the needs of operational parking should be met in full. Third, in allocating the parking space which it is possible to provide for other vehicles, the needs of essential traffic should be given priority by fixing appropriate time limits and charges. Fourth, in allocating any remaining parking space, preference should be given to short-term parkers.

¹H.M.S.O. 1961.

3 Methods of providing parking space

63. This Part describes the methods of providing parking space by

authorised on-street parking local authority car parks commercial car parks car parks in business premises

The most satisfactory type of provision is in well-sited off-street car parks, but in many towns both on-street and off-street parking will be needed.

On-street parking

64. It can hardly be over-emphasised that in most towns it will be necessary for the local authority to maintain a strict control over parking in the streets in the central area. The best way to do this is by operating controlled parking schemes under the Road Traffic Acts. Appendix B gives advice on how these schemes work, the statutory powers and how to plan the schemes in detail.

- 65. There are three ways of controlling the use of parking space for limited periods;
 - (a) by imposing time limits with suitable signs showing the parking places available and the restrictions;
 - (b) by the use of parking discs:
 - (c) by the use of parking meters.
- 66. Less busy areas. In some places adequate control is achieved by authorising free parking with appropriate time limits and leaving it to the police or traffic wardens to enforce this without the aid of meters or discs. This method can be effective in places where the total parking space available, on and off the highway, is sufficient to meet the parking demand, so that the parker has little difficulty in leaving his vehicle conveniently near his destination for roughly the time that he wants. In this situation there is little incentive to exceed time limits and no great effort is needed to enforce them. But as the pressure on space increases the enforcement effort needed rises steeply and may become unreasonably high unless discs or meters are used.
- 67. Where congestion is heaviest. In town centres where the demand for parking is high in relation to the space available, the parking space can be used to the best possible advantage only by ensuring that short-term parking is given top priority. To ensure that there is a high turnover in the use of parking space, time limits must be set and strictly enforced. This is best achieved by using parking meters. While the initial cost of establishing a controlled zone with meters may be considerable the revenue usually covers the cost of installation and administration, as well as making a contribution towards the cost of off-street car parks.
- 68. Meters are likely to be more satisfactory than other methods because they have all the following advantages:

- (a) they are easier to supervise because they give an disconnection of time and require a smaller enforces and staff for the same degree of control:
- (b) they show a driver where he may park and remind that he is in a controlled parking zone;
- (c) they allow greater flexibility within a zone time and charges can be varied according to the supple and demand in particular districts;
- (d) payment for on-street parking promotes the use construction street car parks; and affords an incentive to positive enterprise to provide them;
- (e) the revenue from the scheme generally covers the costs of installation and enforcement.
- 69. The alternative of using discs is much less effective. They are issued free at such places as garages, newsagents' and tobacconists' shops and department stores and the fact that very large numbers of people may get them does nothing to control the demand for parking space. Discs create more offences, for instance parking without a disc or setting it incorrectly. They do not enable the time limit to be varied as between one parking place and another, so the control is less flexible than with meters. On the other hand, discs can be designed to give variable periods in the same parking place, such as a longer period of parking at lunch time, if that is desirable.
- 70. Discs then, are unsuitable for use in the centres of large towns and cities, where the pressure upon parking space is severe. They may work well enough in smaller towns, as long as the demand for parking does not greatly exceed the space available and especially where, as in a country market town, the bulk of the demand arises in a limited area of the town with fairly regular use of the space.
- 71. Enforcement. Controlled parking, if it is to be effective and fair, must also be properly enforced and the police should, therefore, always be consulted. Enforcement normally creates problems, particularly where the control is comprehensive, but much depends on the means of control adopted. Present experience shows that in areas where demand for parking space is high and where meter schemes have been introduced, enforcement of a reasonably high standard can be achieved.
- 72. The best method of enforcing the rules in controlled parking zones is by traffic wardens, whether parking is free or for payment. Traffic wardens are employed by the police authority under section 2 of the Road Traffic and Roads Improvement Act 1960. They can supervise both the parking places and the remainder of the area and issue fixed penalty notices (section 1, Road Traffic and Roads Improvement Act 1960 for breaches of the orders or regulations). Under section 85 of the Road Traffic Act 1960 the local authority is responsible for the operation of metered parking places, so where traffic wardens carry out the functions of parking attendants the local authority contributes towards the cost of the wardens. An alternative arrangement is for the

3 and 9 Effects of parking meters in a London square





wardens' duties to be confined to the control of waiting outside authorised parking places supervised by parking attendants employed by the local authority. Parking attendants cannot issue fixed penalty notices but instead they notify the driver that an offence has been committed. The local authority then institutes the necessary proceedings. Parking attendants have no control over vehicles outside a parking place.

73. Relationship between controlled parking schemes and off-street parking. One of the effects of a controlled parking scheme is to reduce the number of vehicles which can be parked in the streets within the zone at any one time. Other vehicles must either be left outside the zone or parked off-street within the zone. Thus a need arises for off-street parking space. Often this cannot be satisfied immediately.

74. Control of street parking is an essential counterpart to the provision of off-street car parks. There is no reason why the process should not begin with on-street control, provided the local authority announce their clear intention that facilities for off-street parking shall be made available as quickly as possible, either by them or by private enterprise, sufficient to meet the essential need.

75. Where charges are to be made for parking on the highway it is a legal requirement that the net revenues must be used to help provide and maintain off-street parking facilities. An index of the various powers available to local authorities for the provision of off-street parking places is given in Appendix C.

Off-street parking

76. Although strict control over on-street parking is likely to be an important feature in a comprehensive parking policy, it must be supported by construction of well sited off-street car parks.

77. It will, of course, always be necessary to relate car parking space to the capacity of the road system leading to the town centre. In most towns, there is little risk that in the next few years the provision of publicly available off-street car parks will generate more traffic than the road system can handle, provided the spaces are not predominantly used by peak-hour car commuters. Local authorities can, therefore, proceed with confidence to provide off-street car parking as part of their comprehensive parking policy, coupled with control of on-street parking. To ensure that some space remains generally available, it might be necessary in the future to raise charges, above the level required to secure an adequate return on the cost of providing the parking space.

78. Public or Private? How far these car parks are provided by local authorities, by private enterprise or jointly is a matter for each authority to decide, but there are advantages in local authorities providing a good proportion under their own direct control.



10 and 11 Existing attractive features should be retained when providing new car parks



Appearance of a car park improved by planting trees





 ${f 13}$ Sensible use of wide streets for parking; vehicles partly hidden by trees

79. Local authority owned car parks give public control both over parking duration and charges and enable the control to be exercised flexibly. But the authority has, of course, to bear the cost of construction and face the economic risks involved. Suitable central area sites are scarce - surface car parks may be extravagant in the use of land and are often unsightly. The capital cost of multi-storey or underground parking places is high. A ramp type multi-storey garage is likely to cost £300-£500 for each car space, a garage with lifts rather more, and a fully mechanised garage may cost as much as £1,000 for each car space. In each case these figures exclude the cost of land. Where land costs are high the more intensive use of space by multi-storey or mechanised parking will be more of an economic proposition. Where valuable central area sites are being used it may be desirable to design a building capable of additional profitable uses. This is possible under the Road Traffic Acts, where the car park is provided by the local authority as well as by a private developer, subject to the proposals being approved by the Minister of Transport and subject also to planning permission.

80. A much wider participation by private enterprise in the construction and operation of car parks is likely to be to the advantage of local authorities already faced with heavy commitments for capital expenditure. Opportunities will arise for private enterprise to undertake construction of commercial car parks as part of a wider redevelopment project, but much will depend on the encouragement given by the local authority's parking policies. Commercial car parks will not be built if they are expected to compete with free and unrestricted on-street parking or free, or heavily subsidised, local authority car parks.

81. Many local authorities are developing 'partnership' arrangements with private developers in redevelopment schemes on the lines set out in Planning Bulletins Nos. 1 and 3.2 These arrangements offer scope for similar arrangements in dealing with parking needs. Local authorities should also investigate how far short-term parking needs can be met by temporary car parks on sites awaiting development. In some cases, private enterprise might be prepared to put such space to profitable use.

82. Location and design. Whether or not local authorities build car parks themselves or encourage private enterprise to do so, it is vital that they should keep a firm control over their location as part of the comprehensive plan for the town centre as a whole. So long as the parking policy is considered as an element of the town centre plan and not something independent of it, the danger of a serious conflict between short-term and long-term parking needs should not arise. There is an urgent need for local authorities to press ahead with the construction of permanent as well as temporary car parks, either themselves or in partnership with private enterprise. But badly sited permanent car parks provided to meet some current difficulties can easily prejudice longer term plans, build up troubles for the future and prove costly mistakes to remedy. If the right permanent location is uncertain it may be possible to meet urgent short-term needs by providing temporary surface car parks on sites which can be developed later as redevelopment plans materialise.

83. On-street car parking should not be allowed in roads where traffic movement must have precedence. Neither should it be provided in other streets regardless of the impact a clutter of parked cars might have on the character of the area, including the inconvenience caused to those living and working there.

84. Car parks designed mainly for the use of shoppers and other short-period visitors to the town centre need to be carefully sited to avoid excessive walking distances. Those designed for commuters can often be located further out and linked with the public transport facilities and their use encouraged by lower parking charges for longer periods than in the town centre.

85. The car park is likely to be a focal point in town centre schemes. Although the cost per car has to be kept down in a

In Scotland, the Secretary of State.

²Planning Bulletin No. 1, 'Town Centres - Approach to Renewal', H.M.S.O. 1962.

Planning Bulletin No. 3, 'Town Centres - Cost and Control of Redevelopment', H.M.S.O. 1963.

multi-storey garage there is every reason for it to be well designed and well proportioned. Pedestrian circulation within the car park itself should be studied to give motorists a safe and easy walk to their cars. The pedestrian entrance to the shops from the car park will probably be the most used and most important entrance, and should be designed as such.

- 86. To attract the motor shopper, the car park should be easy to find and to use. If it is underground or obscured by other buildings, care should be taken to see that the way in is well signposted and easy to follow, and that the method of payment and control is easy to understand and operate.
- 87. There is scope too for the imaginative treatment of small car parks, both temporary and permanent, which are created by opening up back land or clearing land no longer required for other uses. Any natural features which are attractive should be retained—too often the establishment of car parks is preceded by complete clearance of the site. Figs. 10 and 11 illustrate how a small car park can improve the appearance of the area.
- 88. In laying out a car park attention should be paid to the the arrangement of vehicles will affect the appearance of area. Fig. 14 shows how the appearance of a market square been completely ruined by the evident desire to cram is maximum possible number of cars. Fig 15 shows how car sometimes be parked close to an attractive feature will detracting seriously from its general appearance.
- 89. Off-street parking places for lorries. In some town conclusives parked overnight cause a considerable amount of nuisable and the nuisance is particularly great in residential streets. The solution to this problem is the provision of lorry parks either by the local authority or private enterprise, preferably outside the town centre itself. A lorry park, if it is to be attractive to hauliers, should be secure and guarded. It should include a hostel for drivers and facilities for meals. Experience shows that lorry parks can be a successful commercial venture. The hauliers' organisations strongly support their provision. The existence of a lorry park eases the task of the police who are able to tell drivers who would otherwise park on the street where off-street space is available.
- 90. A credit arrangement for charges and the issue of a document to drivers or direct to hauliers indicating the time of arrival and departure of lorries are useful. They are a means of satisfying hauliers that their lorries are being securely parked at night and encourage them to instruct their drivers to use lorry parks.
- 91. Private car parks serving particular buildings may be provided voluntarily or because they are required as a condition to a planning permission. The use made of these extra parking facilities is, however, outside the local authority's control, and their value may be substantially reduced when considered against the interests of the town centre as a whole. Furthermore, in cases where the total parking space in the town centre is limited by the capacities of access roads, the increase in private parking spaces can only be at the expense of additional public parking spaces. This problem is considered in more detail in Part 4.
- 92. In some cases local authorities may be able to make arrangements with private firms for the use of their car parks by the public when they are not required for private use. Additional parking space for shoppers on Saturdays, when many private car parks are empty, might be found in this way. Difficulties of supervision may prevent public use of some car parks, but local authorities should encourage it wherever possible. They should, of course, give a lead by allowing the maximum public use at weekends of official car parks provided for their own employees, particularly where these car parks are conveniently sited in or adjacent to town centres. Charges may be made for the parking space provided.



14 Environment spoilt by parked cars



4 Use of car parking standards

Current standards

93. At present many local planning authorities lay down certain standards for the provision of car parking spaces in shops, offices and other traffic generating premises which are imposed as conditions to planning consents when new development or redevelopment occurs. These standards vary from authority to authority. For offices the standards range from one car space for every 2,500 sq. ft. of floor space to one car space for every 350 sq. ft. Some authorities use floor area as the basis; others use the number of workers; and others various combinations of the two. The variation in the practices of local planning authorities is a equally great for shops: standards range from one car space for every 2,500 sq. ft. of gross floor space to one car space for every 400 sq. ft. Some authorities distinguish between main and minor shopping centres; others between large and small shops. Some distinguish between operational and non-operational requirements: others do not.

:riticisms

Standards of this nature have been criticised on the grounds: the variation between authorities is far greater than can sibly be justified by differing local conditions; that the stands are unduly onerous, lead to inefficient use of expensive and and add greatly to development costs in valuable central area sites. The end result can be a haphazard distribution of small private car parks sited without regard to the needs of the town centre as a whole and it can lead to traffic generation in excess of road capacity. In the long-term, the development of pedestrian shopping streets and the establishment of primary road networks may be hindered by the presence of permanent car parks of this kind.

95. These criticisms have considerable force. The use of parking standards to provide non-operational parking space in individual buildings is an imperfect instrument of control. It is geared to the pace and scale of development or redevelopment which often bears no relation to the rate of traffic growth and the increasing demand for parking provision. Moreover, the standards are inflexible. On-site provision cannot normally be extended to cope with additional demand as car ownership grows. It is tied to the site and often cannot be used because of staffing, timing or other difficulties, to meet demand generated by other uses. Furthermore, some of the standards now being applied are undoubtedly onerous. If the average space needed for parking and manoeuvring by a single car is about 200 sq. ft. and if a standard is laid down for one car space for every 400 sq. ft. of floor area, it could mean that in a given building parking space could take up a third of the total floor space.

Need for review

96. Despite these inherent difficulties parking standards have been used in planning control because they represent a way of

ensuring that new development should make some contribution towards meeting the parking demands it generates. In some towns, where redevelopment may be taking place on a large scale, it is possible to make a substantial addition to the amount of parking space available in this way.

97. Car parks for private use haphazardly provided through development control are no real substitute for well-sited local authority or commercial car parks forming part of comprehensive parking arrangements and integrated with wider redevelopment traffic and highway measures. And this is what is needed in the future. Consequently existing planning standards for non operational car parking provision in central area developments should be reviewed critically in the light of the urban traffic problems now foreseen to see whether they are really sensible and are in the best interests of the town.

98. Planning control can and should be used to ensure that *operational* parking requirements are met as fully as possible when development or redevelopment takes place.

Local standards

99. But if a planning authority decides to implement its parking policies in part (and at best it can only be in part) by means of planning standards for non-operational needs, then it should be operated in a way that is reasonable and related to local needs. The planning standards will then need to be devised so as to be fair between one developer and another and so that the burden placed on any individual is reasonable, bearing in mind the requirements for operational parking spaces. The standards will have to be based on an appraisal of the overall parking needs for the town centre and on the general parking policy adopted. The standard in this case will clearly be a local one.

100. For shops and offices perhaps the simplest way of sharing the provision amongst developers is by relating the floor space of the new development to the total floor space of that class of land use in the central area. For example, the developers of a new block with an office floor space of about 2 per cent of the total office floor space in the central area would be asked to provide about 2 per cent of the total non-operational spaces which it has been decided should be provided by developers. This method ignores such refinements as differing intensity of use of floor space by different occupiers but it is simple and can be related to the local situation.

101. The extent to which additional parking space over and above operational space should be provided through planning standards in new development will vary according to the type of development and from one town centre to another. In office buildings in the centres of most of the larger towns, for instance, there will be good grounds for restricting the amount provided to the operational needs of the business where this can be ascer-

tained. In smaller towns, where the possibility exists of providing for fuller accessibility, as described in the Buchanan Report, less instrictive policies may be applied. Similarly, in some town antres in conurbations where public transport facilities on cross puntry or tangential routes are poor, some provision for parking in new development over and above the essential needs may well desirable as part of a comprehensive policy. A severe limitation in non-operational parking space in new shopping development may not be practicable or desirable generally since more and none people will shop by car and will only do so where committed parking facilities exist, but as already explained in para. 33 it is better where possible, to concentrate parking provision for shoppers in a few convenient off-street car parks, instead of encouraging a multitude of small car parks in or adjoining shops throughout the shopping area.

Contributions by developers

102. Because land in town centres is valuable, its use for small, separate, private car parks is seldom likely to be the best use to which it can be put from the point of view of the community. Several local authorities have been able to conclude arrangements with developers whereby the latter make financial contributions towards the cost of providing spaces in public car parks as an alternative to providing parking space on site.

103. This solution will often be to the advantage both of the developer and of the public. The developer will be absolved from the need to devote valuable space within his building or its curtilage to the unremunerative function of car parking; the public will get a car park which is open at all hours and available for their use. Where, therefore, the planning authority would normally require by condition that development should include provision for the parking of cars it may be that the developer will prefer to make a contribution towards the cost of car parking facilities provided by the authority. If that is so, section 268 of the Local Government Act 1933 or section 340 of the Local Government (Scotland) Act 1947 would enable the authority to accept the gift and devote it to car parking purposes. Parking spaces so provided must be available to the public at large and cannot be earmarked for the particular use of a developer.

104. It should be understood that arrangements of this kind must be entirely voluntary. It would be wrong to seek to impose them as a requirement in a planning permission or to withhold planning permission on the ground that the developer was unwilling to enter into such an arrangement.

105. The Minister of Housing and Local Government and the Secretary of State for Scotland welcome arrangements of this kind and invite local authorities to consider whether more frequent use of them may not be possible.

5 Charges

106. In almost every town the pressures on parking space in the centre will be so great that the local authority will have to exercise some form of control on its use. The most effective, simplest and the fairest way of doing so is by time limits and charges.

107. Both on and off the street, time limits and charges

- (a) ensure that parking space is available for those whose journeys mean added prosperity – in the widest sense – to the town or area:
- (b) enable the maximum number of people to park, within the limit of available space, sufficiently long to be able to carry out conveniently whatever activity brings them to the town centre:
- (c) ensure that unoccupied parking space exists and is spread evenly over the whole area so that motorists are not frustrated by being unable to find space to park; and
- (d) ensure that the amount of space provided is so related to the capacity of the road system as not to create unacceptable traffic conditions.

108. A policy on charging for parking space which results in much of the available space being occupied by commuters will, in conurbation centres and the larger free standing towns today, and ultimately in most towns, mean that the business visitor, the shopper and the sightseer will be discouraged from visiting the town centre to the detriment of local prosperity. He will go elsewhere to a town where more rational parking arrangements exist. Free street parking and free car parks will in practice be no use to the very visitor the town most wants to encourage. Experience shows that free and low-priced car parks tend to be filled rapidly early in the morning by commuters leaving little or no convenient off-street parking space for shoppers and other short-term visitors. While this particular problem can be dealt with by closing car parks during the period of commuters' arrival in the town centre this is a blunt and inefficient method. Early shoppers and visitors are likewise barred from parking. 109. In those towns where such a policy is current but does not yet have these effects, local authorities should keep the position under regular review. When the situation changes and difficulties begin to show, they should look again at their charging policies. But, from the start, they should carefully consider the effects their policies are likely to have on the provision of public car parks by private enterprise. They should also look ahead to see what effect their policies will have on the economic framework within which the car parks, particularly multi-storey and underground garages, will be provided. The rate burden of free car parks could have a vital influence on the financial resources for providing more expensive car parks in the future.

110. Free and low priced off-street parking space will create a growing burden on the ratepayers, by no means all of whom will gain any benefit, direct or indirect, from the provision of the space. More important, private enterprise will not make any

contribution to the parking needs of the town by providing public car parks as a trading activity. The amount of capital expenditure involved in providing the space a town will not may well be substantial, and local authorities may be wise share the burden with private enterprise. Where private enterprise ar parks already exist, undercutting them will inevitably lead their closure.

111. Proposals to charge for parking space are likely to unpopular when they are first announced. Trading interespecially shops, tend to see charges as a restrictive meass of which will adversely affect their interests. But local authorities who have already faced criticism of this nature have found that once parking on the street is controlled the measures are often welcomed by those who formerly opposed them, provided that the short-term parker is given priority. Moreover, charges in carparks and on the street, can be the means of carrying out an extensive programme of provision of more parking space and, in the long-term, the means of balancing the demands for parking space against road capacity.

112. It is important that a charging policy should be flexible. Charges should be related to location, to time of day, to day of week (and in some places to season of year) and to demand. A flat rate applying at all times for all car parks in a town centre is generally undesirable. Differentiation of charges between the more remote and the most convenient parks is preferable. Higher charges should operate at the times when demand is greatest. The aim should be to have car parks nearly but not quite full so that some space is always available. As demand increases charges should be adjusted to keep it to acceptable levels. (With an appreciable proportion of the total parking space off the street well distributed over the town centre under the direct control of the local authority, the levels of charges in private enterprise public car parks will follow sufficiently closely the levels adopted by the local authority).

113. In determining the level of charges in a given area it is important to get the right balance between on-street and off-street charges. Usually it will be preferable that the on-street charges should be higher than those made at off-street parks so as to encourage maximum use of the latter.

114. The level of on-street parking charges should not be so low as to result in nearly complete usage throughout the day so that would-be short-term parkers have to cruise looking for a space. The charges should be such that there are usually some spaces available at all times of the day.

115. The level of charges for off-street spaces will depend upon the authority's parking policy. Where it is intended to rely on private enterprise to provide some of the spaces, it will be necessary to make an economic charge for off-street parking, even at parking places provided by the local authority, so as to ensure the continued participation of private enterprise. Where

the demand for parking is very high it may be necessary to introduce charges in excess of the economic level in order to implement the parking policy adopted by a local authority. The level of charging and the relation between on-street and off-street charges should be reviewed from time to time.

116. Whatever method is adopted to collect charges for onstreet parking the statutory powers are those contained in sections 85-90 of the Road Traffic Act 1960. The statutory procedures for other methods of collecting charges are therefore the same as those which apply to the designation of metered parking places. The charges must be specified in the Order designating the parking places.

117. If high charges are made for long-term parking in central areas to discourage the use of private cars for daily travel to work, there may be justification for applying the profits to reduce the charge at peripheral car parks from which a traveller might continue by bus or train to the central area. In a large urban area this may involve the local authority concerned in assisting another suburban authority to provide adequate car parking space for commuters as part of a wider transportation plan for the urban area as a whole. (There are powers to do this in the Road Traffic Act 1962). It may also be possible by arrangement with transport operators to sell combined season tickets for parking and public transport.

118. Finally, the keynote for future charging policies is expressed succinctly in the following quotation from the Buchanan Report:

'We suggest that parking policy is best kept on a rational basis if it stems from the principle that it is the liability of an owner or driver of the stationary vehicle to dispose of it off the highway. Departure from this principle rapidly leads to anomalies and unfairness. From this it follows that parking on the highway or any form of publicly subsidised parking are in the nature of concessions which should be zealously safeguarded by the public authority.'



APPENDIX A

The central area parking survey and plan

CONTENTS

Introduction

1 Survey

The survey in outline 6
Basic survey 7
Usage survey 8

The survey in detail

Street parking survey 11

Frequency of observation 13

Method of observation 15

Size of sample 16

Timing of survey 17

Equipment 20

Off-street parking survey 24

2 Analysis

Summaries of numerical data 27

Analysis by maps 29

Effect of parking on the town centre 31

Sources of demand outside the town centre 37

Demand inside the town centre 43

Shops 45

Offices 46

Road capacity and parking space 47

3 Plan

The town centre parking map 51

Introduction

- 1. The parking survey outlined in this appendix has immediate relevance to the central area parking problems of all towns. It will assist local authorities to draw up a short-term parking policy which will make the best possible use of existing parking space, consistent with minimum interference with moving traffic and maintenance of good standards of environment. It will also point the way towards a longer term policy which will be required to deal with the heavier parking demands of the future.
- 2. The survey has been designed with present shortages of professional and survey staff in mind. It does not do away with the need for a more comprehensive survey of parking, which may form part of a land use/transport survey in the larger towns, but it will act as a useful pilot study for it. Because it is economical of manpower and time to carry out, the limited parking survey can be repeated from time to time and provide up to date information on changes in parking requirements, use and supply.
- 3. The survey consists of three parts. Part 1, the survey process itself, involves the collection of data, partly by observation and enumeration on the streets and partly from examination of existing information on parking, traffic movement and land use. The methods suggested will be familiar to traffic engineers.

Part 2 is a new method of approach to the analysis of the rvey data. It is based on a series of maps of the type suggested. Planning Bulletin No. 11 for the development of a Town Centre Map. This method has two distinct advantages. It identifies the parking policy as a constituent part in the preparation of the town centre plan; it offers scope for the use of local knowledge, where precise fact derived from survey may not yet be available; and indicates any additional survey work which may be required.

5. Part 3 shows how the results of the analysis can be combined in a policy map which indicates the lines of a parking plan for the town centre.

1 Survey

The survey in outline

- 6. He survey consists of two inter-related studies. A basic survey will directly features of the streets themselves which influence into a parking space, the existing provision of parking space, the existing provision of parking and how it is controlled; and a usage survey which is to a standard parking duration survey.
- 7 sie survey. This comprises:
- A ret survey
- (pavement crossings, access to premises;
- (a) soading bays;
- (3) ous stops:
- (4) taxi stands:
- (5) pedestrian crossings;
- (6) visibility splays at junctions;
- (7) one-way streets;
- (8) private streets;
- (9) service and rear access alleys;
- (10) vacant or unused land suitable for temporary or permanent parking space;
- (11) carriageway widths;
- (12) other factors which may be relevant locally, e.g. areas of special amenity.
- B. Street parking survey
- (1) controlled parking
 - (a) by regulation (including 'discs', with each type separately classified);
 - (b) by meters (classified by type of control);
- (2) parking prohibited
 - (a) always;
 - (b) during peak hours;
- (3) controlled loading and unloading.
- The remainder will be uncontrolled parking.
- C. Off-street parking survey
- (Each parking site to be recorded separately)
- (1) type
 - (a) ground level only;
 - (b) multi-storey or upper level only;
 - (c) basement only;
- (2) ownership and use
 - (a) publicly owned, for public use;
 - (b) privately owned, for public use;
 - (c) private use only;
- (3) commercial vehicles only
- (4) payment
 - (a) fee-charging (further sub-divided by rates charged);
- (b) free;
- (5) time limited
 - (a) up to I hour only;
 - (b) up to four hours only;
 - (c) over four hours or no limit;
- (6) number of spaces provided;
- (7) size of parking area;
- (8) number (and location on map) of entrances and exits.

- 8. Usage Survey. The term 'usage' is employed rather than 'demand', since a count of standing vehicles in the survey area will not disclose the total demand. In most town centres 'demand' exceeds the supply of space, and there is, therefore, an element of frustrated demand, which goes unrecorded. Parking demand can be assessed as part of a land use/transport survey but this data is not required in evolving a shorter term parking policy.
- 9. In many towns the capacity of the central area street network will be the principal determinant of the amount of car parking which can be provided. It is important, therefore, to be aware of the relationship between the number of parking spaces and peak hour accumulation and dispersion of the vehicles using the spaces. Counts of standing vehicles at regular intervals throughout a period, including the morning and evening peak period, will give the overall build-up and decline of the town centre parking accumulation. The standard type of duration survey will give the numbers of short and long-term parkers; the turnover at each parking space will give the traffic attraction of each type of parking provision.
- 10. It should be part of the local authority's policy to obtain adequate loading and unloading space; commercial vehicles should therefore be separately identified in the survey.

The survey in detail

- 11. Street parking survey. Manpower can be saved if the census of parked vehicles and the usage survey are combined: totals of parked vehicles can be obtained from the forms which record the duration of parking. The street parking survey described is therefore based on the standard type of parking duration survey in which the survey area is divided into 'beats' each of which can be patrolled by an observer at intervals of sufficient frequency to note the turnover of parked vehicles. The precise method used will be influenced by the standard of accuracy sought and the manpower available.
- 12. The scale and reliability of the street parking survey will largely depend on four points:
 - (a) Frequency of observation.
 - (b) Method of observation (by car or on foot).
 - (c) Size of sample.
 - (d) Timing of survey.
- 13. Frequency of observation. The more frequently the survey is repeated during the day the more complete the information obtained (but the greater the work of analysis). If the majority of streets can be observed only at infrequent intervals during the day, it will be worthwhile to undertake continuous observation in a sample of streets to determine an acceptable frequency for the whole survey area, and correction factors that will need to be applied to the data subsequently obtained. Experience suggests that a satisfactory interval between patrols is \(\frac{1}{2}\) hour for on-street parking and 1 hour for off-street parking. Where manpower is

limited, it is recommended that the time intervals are maintained by sampling. It is better to sample on-street parking every \{\frac{1}{2}\} hour than to count all vehicles every hour.

14. In the subsequent analysis the duration of parking is estimated from the number of times a particular vehicle is observed. The limitations of the method must be recognised and care should be taken in the analysis not to assume a degree of accuracy that the survey data would not support. For instance, with an observation frequency of 1 hour a vehicle observed once could have been parked for 1 minute or for 59 minutes. On the other hand a number of vehicles could have been parked for periods of up to 29 minutes without having been observed. Such a study, therefore, would have revealed little of significance regarding very short-term parking. If manpower is particularly scarce it may be possible to isolate areas where very short-term parking is an important element in parking usage (such as near banks or post offices) and introduce a more frequent patrol in those areas only. 15. Method of observation. The survey will usually have to be carried out on foot, but where vehicles are not parked too close together it may be possible for observers to use a moving car. Practised observers in a moving car can log vehicle registration numbers on to prepared forms (the last three digits only need be recorded), or call registration numbers into a portable tape recorder, transcribing recordings into forms at the end of the day. The length of 'beat' that can be covered within the predetermined interval is increased by this method.

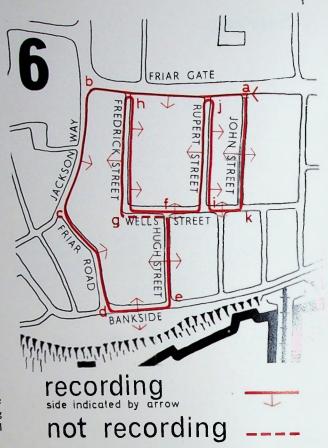
16. Size of sample. The size of the town centre and the manpower available will serve to determine whether to survey all streets or only a sample. If sampling is used, local knowledge should ensure that it is representative, covers all types of parking - commuters, visitors, shoppers and residents - and can be scaled up to give the picture of the whole area.

17. Timing of survey. The choice of time and season for the survey, again partially determined by the resources available, will also depend on the characteristics of the town and on the extent of variation in parking usage throughout the week. In most cases seasonal demand is at an average level in early autumn. The peak weekday parking periods may be ascertained from a pilot survey. Significant additional information may be obtained by undertaking surveys during early-closing day and on Saturday. Such selective surveys enable separate studies to be made of the quantity and type of parking associated with work and shopping uses.

18. The duration survey should cover a period which includes the arrival and departure of commuters' and shoppers' cars. The exact times will vary locally and with the day of the week, depending on shop, office and industrial working hours, but will probably extend over a 12 hour period. This will require two sets of observers, or the staggering of the work over the same days in successive weeks.

19. In certain towns there may be a case for a special study on market day, or, in resorts, at special times of year: every town will know its particular parking problems. If resources permit, special counts may be made at appropriate times to study the parking generated by other uses – entertainment, for instance. Where central area parking spills over into fringe residential areas, or where restrictions imposed on the central area parker might induce fringe-area parking, there should be a separate survey to determine the parking usage of residents. All such additional information will help in understanding parking needs and developing a flexible and appropriate parking policy for the town centre as a whole.

20. Equipment. The extent and frequency of the survey will cause variations in detail in the organisation of the work, but in general, each observer should be equipped with a board holding a map of the streets he is to patrol, and a set of prepared forms on to which to enter the vehicles' registration numbers. A specimen map and part of a form are shown opposite.



MAIN HESTER

21. The map should be marked to show the parking controls in force on the observer's route, and each section into which the patrol is divided should be defined. Section limits should be at clearly distinguishable points, such as street junctions and should coincide with points where parking regulations change.

22. There should be a separate survey form for each section. The form should be divided into columns, one for each patrol. Vehicle registration numbers should be entered in the appropriate column at each patrol, which should be carried out always in the same direction.

23. It will often be necessary to record the numbers of vehicles on each side of the road separately. In these circumstances a single observer may have to make two circuits, or two observers may have to be employed. The map and forms should show the direction in which each side of the road is to be patrolled and the two sides of the road should be distinguished on the form by marking the columns appropriately according to the direction of the patrol

24. Off-street parking survey. Similar methods should be used to record off-street parking. The same period should be covered as in the street parking survey. It may not be necessary to resort to sampling, but if it is, the complete range of types of parking provision should be sampled. Some ground-level car parks may be small enough and open enough for the vehicles to be observed from the street, but generally off-street parking areas will need to be visited on foot and it is probably best to organise a separate team of observers for this work. The consent and co-operation of private operators and owners of parking space will need to be sought before the survey; they may well be able and willing to supply the information required at each visit by the observer, thus reducing the time needed for each patrol.

25. The accumulation and duration of stay of commercial vehicles loading and unloading will be of special interest in determining standards of provision of service access and loading space.

PARKING SURVEY

on street: duration

Patrol: 6

Street: FREDRICK STREET

Section: $g \rightarrow h$

Side: LEFT

A.M.

8.00	8.3		9	.00	9.	30	10	.00		.30		.00		.30	12	2 .00	1:	2.30	1
LR	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	L	R	
.14	214		34		707		254		22		22		707		4		4		177
2	173		707		173		707		707		707		173		191		191		191
	20		173		221		173		173		173		9		173		27		27
	61		221		6		221		221		742		42		-g		9	حصف ا	9
	623		6		42		6		742		42		761		42		42		146
	912		42		317		42		42		193		491		113		221	_	221
			20		990		152		29		491		73		491		7		7
			61		16		116		491		73		226		73		73		73
			623		20		940		73		226		11		14		14		961
			912		61		16		990		11		20		613		447	1	707
					441		20		11		20	Ì	716		20	\rightarrow	20		447
					623		716		20		716		61		229		229		20
					912		61		716		61	-	441		61		61		229
					447		441		61		441		623		441		99		61
						1	523		141		623		912		623	e	523	- 11	99
						(712		623]	912				912		17	1	84
						6	601		712								1		17
								- (601	1		\perp		-		-		-	
										1				-		1		-	- 1
														1				1	1
														4		_			1
								_		1		_		\bot		-		-	-
										1				4					
				-															1
										1				#		-		+	+
										1		\perp		4		1		+	-
								_		1		1		#				1	
						\perp				-		-		#-		-	+	+	
				4		4	_	-		4			_	#	-	+	-	+	+-
										1		1	4	1	-	-			-
						1		1				-		\bot		-	-	+-	
														-		-	-	-	-

8.00—11.00 J. White

11.00-1.30 Brown

Date: FRI. 20-3-64

2 Analysis

- 26. The data obtained in the usage survey is best analysed numerically and presented in tabular or graphical form. Subsequent analysis of the whole survey data can most easily be carried out in a series of maps and overlays such as are presented below.
- 27. Summaries of numerical data. The preliminary analysis of the usage survey data shou'd produce, as a minimum set of results, the following:
 - (a) tables showing the number of vehicles parking in each section at the end of each patrol and over the whole survey period (1);
 - (b) tables showing the average duration of waiting in each survey section and in relation to any parking controls in force on each section (2);
 - (c) tables showing the percentage occupancy of acceptable parking space in each survey section and area (3);
 - (d) tables showing the number of parked vehicles and the parking duration classified by time intervals:
 - (i) throughout the survey period (4);
 - (ii) in the peak period (5);
 - (e) a graph showing the accumulation of parking within the survey area over the whole survey period. Of greatest significance is the rate of accumulation and dispersion of parked vehicles during the peak periods.
 - 28. Sets of tables covering the whole of the central area will enable an analysis to be made of the present use of parking space and in particular, will facilitate decisions on time limits and charges.

PARKING ANALYSIS: 1

number of times seen

acceptable number of parking spaces: 14 parking restrictions in force: NONE

Patrol: 6

0

Street: FREDRICK STREET

Section: 9 > h

Side: LEFT

Date: FRI 20-3-64

		,																Dai	e:	r.	<1.	20:	- 3-	-64
	ricle										п	umb	er of	times	s see	n								
nun	nber -	8.00	8.30	9.00	9.30	10.00	10.30	11.00	11.30	12.00	12.30	1.00	1.30	2.00	2.30	3.00	3.30	4.00	4.30	5.00	5.30	6.00	6.30	tota
2	4	2	2																					2
6	3	10	10	10	10	10	10	10	10	10	10													10
5	4	9	9	9	9	9	9	9	9	9														9
	3		8	8	8	8	8	8	8	8														8
	-																							
pari		3	6	10	14	17	18	16	15	16	16	17	דו	16	17	18	18	17	15	11	8	6	3	294
arriv	als	3	3	5	5	5	6	2	2	6	6	5	5	5	4	6	3	5	2	2	1	-	1	82
epart	tures			1	1	2	5	4	3	5	6	4	5	6	3	5	3	6	4	6	4	2	4	79

Note: The total number of times each vehicle was seen over the whole survey period should be recorded in each half-hourly column to facilitate subsequent analysis.

An arrival is recorded for the period of the first recording.

A departure is recorded for the period of the first omission of a recording.

PARKING ANALYSIS: 2

duration

Patrol: 6

Street: FREDRICK STREET

Section: g→h

Side: LEFT

D . ERI 20-3-64

																	D	ate:	F	RI.	20	- 3	- 64	}
~ f	average									n	umb	er o	f veh	icles	park	ed								
times seen	duration in hours		8.30	9.00	9.30	10.00	10.30	11.00	11.30	12.00	12.30	1.00	1.30	2.00	2.30	3.00	3.30	4.00	4.30	5.00	5.30	6.00	6.30	tota
1	1/2	-	-	1	2	3	1	1	1	2	-	2	3	-	2	3	1	1	2	-	-	-	1	26
2	1	1	1	-	ı	2	3	3	ſ	2	3	2	J	2	2	1	2	2	1	١	1	-	-	16
3	1 ½	-	-	1	2	2	2	1	1	1	3	4	3	1	1	1	2	2	2	1	1	1	ı	11
4	2	-	-	1	1	2	3	2	3	2	2	3	2	3	3	4	4	3	2	1	1	1	1	11
etc.																							- 6	0.0
total		3	6	10	14	17	18	6	5 1	6	16	7	17	16	17	18	8	7	5	11	8	6	3 2	82

Note: The column on the right of the table records the total number of vehicles parked for a given period during the day, i.e. the number of vehicles parked in each half-hourly period divided by the number of times each vehicle was seen.

PARKING ANALYSIS: 3

occupancy: derived from forms 1

Whole town centre or areas no: 1-3

Date: FRI. 20-3-6

	capacity of area		8.00	8.30	9.00	9.30	10.00	10.30	11.00	11.30	12.00	12.30	1.00	1.30	2.00	2.30	3 .00	3.30	4.00	4.30	5 .00	5.30	6 .00	6.
4	1 308	no.	52	131	221	296	314	334	329	317	321	319	324	304	317	314	339	330	317	316	237	174	121	30
	300	%	17	43	72	96	102	108	107	103	104	104	105	99	103	102	110	107	103	103	77	57	39	13
2	146	no.	24	71	116	141	152	157	159	153	147	142	146	140	147	154	162	163	150	134	101	44	27	22
Ĺ	140	%	16	49	79	97	104	108	109	105	101	97	100	96	101	105	111	112	103	92	69	30	18	15
3	077	no.	61	84	171	199	221	261	241	240	124	202	197	191	211	24	270	274	271	221	170	107	73	70
3	277	%	22	30	62	72	80	94	87	90	87	73	71	69	76	87	97	99	98	ВО	61	39	26	25

Note: Capacity is the maximum acceptable number of on-street parking spaces

PARKING ANALYSIS: 4

parking throughout survey period derived from forms 2

Whole town centre of area no.

Date: FRI. 20-3-64

number of times seen	1	2	3-4	5-8	9—12	13—20	21—22	
av. duration in hours	1/2	1	1½-2	2½4	4½6	6½10	over 10	total
total parked	618	356	394	262	150	75	19	1874
%	33	19	21	14	8	4	1	100
vehicle-hours of occupation	309	356	690	852	788	619	204	3818
%	8	9	18	22	21	16	5	100

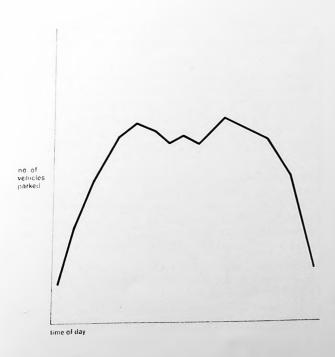
PARKING ANALYSIS: 5

parking in peak parking period derived from forms 2

Whole town centre or area no: |

Date: FRI. 20-3-64

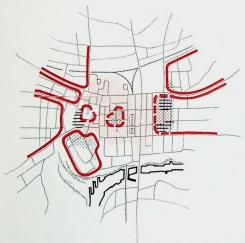
nu Ter of	1	2	3-4	5-8	9—12	13-20	21—22	
av. guration in hours	1/2	1	1½-2	2 ½ - 4	4½-6	$6\frac{1}{2}-10$	over 10	total
total parked	26	34	64	79	71	54	11	339
%	8	10	19	23	21	16	3	100
vehicle-hours of occupation	13	34	112	257	373	446	118	1353
%	1	3	8	19	28	33	9	100



|| 養

Analysis by maps

- 29. The numerical summaries lead on to a further sequence of analysis in three parts:
 - (a) an appraisal of the effects of parking on the town centre, on the convenience, pleasantness and efficiency with which the centre and peripheral areas are used and function, together with the effect on accessibility and environment;
 - (b) an analysis of the causes and pressures behind present parking usage and future parking demand;
 - (c) an assessment of how to make optimum use of existing facilities.
- 30. The process described below does not assume that basic data on all aspects of traffic movement, land use, and environmental standards, is available. If it is, so much the better; if it is not, local experience can probably fill in the gaps for the time being so that a start can be made in formulating a short-term parking policy. More detailed surveys can be undertaken when resources are available to tackle them, and the parking policy modified if necessary. The purpose of this part of the analysis is to show how the measure of the parking problem as a whole can be taken very quickly with the minimum use of resources, and that first steps can be taken without delay to deal with it. In some cases it will not be necessary to compile the full range of maps described in this Bulletin. They are merely a convenient way of illustrating the interaction of factors which in most towns will have a bearing on parking problems. The maps are shown here separately, but in practice it will probably be more useful to prepare them as transparent overlays.
- 31. Effect of parking on the town centre. Map 1 defines the principal land use generators of parking and picks out those areas where competition for parking space is most intense. Identification of the area currently used mainly for shoppers' parking may be obtained by counting parked vehicles on Saturday afternoons when offices are closed. Similarly, the area used by office parking can be derived from a count on early closing day. Residential parking may be identified by counting vehicles left out overnight. The counts will show where multiple use of publicly provided parking space would be advantageous.
- 32. Differences in parking duration and turnover can be broadly related to the generating user. Such information can become the basis for any future system of control based on charging or time limitation. In addition, the extent of the parking associated with particular generators can give an indication of acceptable walking distances.
- 33. Parking is one of several central area servicing functions. It competes for space, not only with other town centre components, but with moving traffic and commercial vehicles servicing the central area. Together with these elements it can adversely affect the environment of the central area, and in some cases, the environment of peripheral residential areas into which it overspills
- 34. Inevitably this has led to congestion on streets where parking has been allowed at the expense of traffic movement, and on streets serving car parks which have had to be sited where opportunity offered. In the general shortage of off-street service access, vehicles servicing the central area buildings conflict both with other stationary vehicles and moving traffic.
- 35. Maps 2 and 3 bring out these 'pinch points' where relief is most needed. Probably no special survey will be necessary to compile Map 2. The points of conflict will be only too well known already. Material for Map 3 may be obtained in the course of the parking usage survey.
- 36. Map 4 shows the effect of the conflict on the environment in which it occurs.



residential areas

residential use within mixed use areas

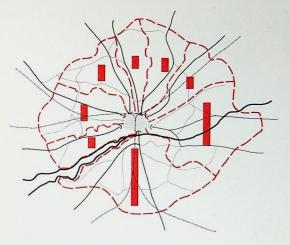
extent of primary central area uses

areas of historic and architectural significance where parked cars are an undesirable intrusion

town centre parking intruding into residential environment

residential areas where parked commercial vehicles are detrimental to environment

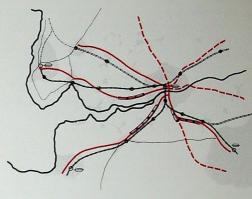
map 4



major town centre approach roads

catchment areas within the town related to approach roads

potential parking demand from each catchment area



existing built-up areas

railways—maximum wait less than 30 minutes at peak periods

railways—maximum wait more than 30 minutes at peak periods

railway stations—stopping trains

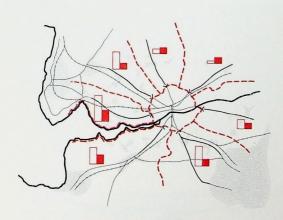
railway stations—express and stopping trains

'bus routes-maximum wait less than 20 minutes at peak periods

'bus routes-maximum wait more than 20 minutes at peak periods

map 7 bus routes where 'buses are often full during peak periods

map 5



existing built-up areas principal approach roads

limits of catchment areas outside the town

number of commuters using cars number of shopping visitors using cars residential areas more than Imile from 'bus stop

residential areas between 200 yards and I mile from 'bus stop

'bus routes—maximum wait more than 10 minutes at peak periods

0000

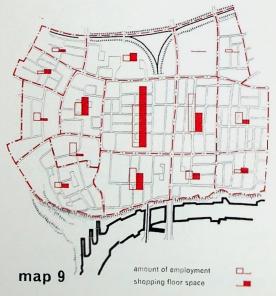
'bus routes – maximum wait less than 10 minutes at peak periods

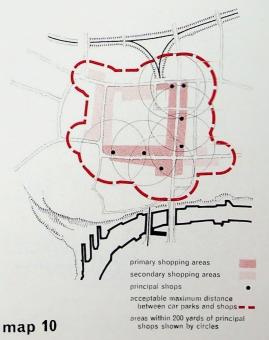
map 8

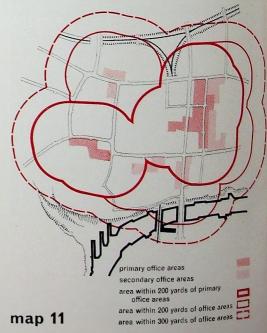
map 6

- 37. Sources of demand outside the town centre. Broadly speaking, the demand for parking space arises from all the activities going on in the town centre. The amount and type of parking demand is determined by a number of variables, information on some of which may be lacking or inadequate.
- 38. However, the limited analysis described here depends mainly on five determinants for which information is likely to be available or can be estimated from local experience. They should be related to the data obtained from the survey of existing parking usage. At the originating end is the number of vehicles per head of the hinterland population. At the receiving end, the numbers employed in the town centre, the area of shopping space; between these the distances to be travelled, and the availability of alternative forms of travel. Those which apply to the catchment areas are illustrated in Maps 5–8.
- 39. In Maps 5-8, the hinterland of the town centre is defined, reaching out to the limits of areas which look to it for employment and shopping facilities. The whole area is sub-divided into catchment areas, each related to a major approach road or roads carrying traffic to the centre. This division into catchment areas gives a preliminary indication of the places from which parking demand is likely to be heavy in the future. For instance, Map 5 shows that within the town itself the southern catchment area has the highest vehicle ownership potential, but the two approach roads within it converge on the outskirts of the town centre and the road capacity may be unequal to the potential parking demand from this area. The effect on the town centre's parking provision is examined in subsequent paragraphs.
- 40. Detailed estimates of vehicle ownership in each catchment area usually require home interviews and are more appropriate to a fuller land use/transport survey. For the purpose of the limited survey it will be sufficient to multiply the population of each catchment area by the number of vehicles per head in a comparable area.¹
- 41. Where the information is available, it is useful to record as on Map 6 the numbers of commuters and shoppers using cars originating from each catchment area. At a later stage in the analysis it will help to indicate areas where there may be a need for peripheral car parks associated with public transport services into the centre.
- 42. Maps 7 and 8 illustrate existing public transport services and show where commuter travel by car is encouraged by lack of adequate alternative means of getting to work.
- 43. Demand inside the town centre. Two useful indicators of demand in the town centre are the figures of employment and floor space (offices and shops). Where information is available, these figures can be shown diagrammatically on a map, which is divided into convenient areas as in Map 9, to give further guidance on places where parking demand is likely to be highest.
- 44. In many town centres parking space available at certain times will always be less than potential demand. The aim will therefore be to provide the optimum amount of parking space, of the appropriate type, acceptably located. There is little benefit in providing spaces for shoppers beyond an acceptable walking distance of the main shops. Equally it is indefensible to pre-empt acceptable shopping parking locations by offering them to commuters.

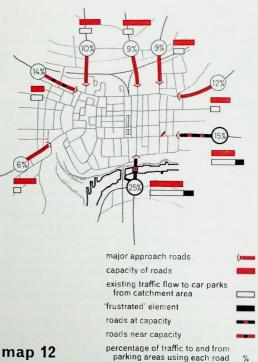
¹Figures of vehicle registrations are available in England and Wales for counties and county boroughs only; in Scotland for counties and large burghs only.







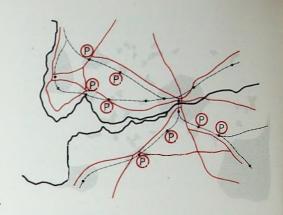
- 45. Shops. A sequence of priorities must be observed. The town centre must be serviced: trade may depend heavily on the carborne shopper: the shopper wants parking space nearer to his destination than the commuter. Thus from the total demand, the different elements can be provided for, in a pre-determined order of priority and to the degree that their requirements of parking space can be acceptably located. Map 10 illustrates the boundary beyond which in the town centre illustrated, it would be pointless to provide parking spaces for shoppers. Acceptable walking distances from parking spaces to destination vary from town to town. They can be estimated by observation on Saturday afternoons. It may be that insufficient parking spaces can be made available to shoppers within acceptable walking distance of the shops: if this is so it may be in a town's interests to ensure that public transport offers a convenient alternative means of reaching them.
- 46. Offices. As with short-term, so with commuter parking. Any provision should be within whatever is thought to be the acceptable walking distance in the town centre concerned. Where, for a variety of reasons the limit of provision is exhausted before demand is satisfied, an alternative is to make full use of a combination of modes of travel with parking places provided at public transport stations outside the central area. Possible commuter parking boundaries are illustrated in Map 11.
- 47. Road capacity and parking space. In any consideration of future plans, the inter-relationship of parking and moving traffic must have close attention. Within the town centre, the movement of cars will be influenced by the location of parking facilities and the number of spaces provided in relation to the capacity of the main network of roads entering the town centre.
- 48. Map 12, which is an extension of the analysis begun with Map 5, shows the existing traffic volumes on the main approach roads and indicates where there is spare capacity. To simplify the illustration, through traffic is excluded. The southern and southeastern approach roads are already filled to capacity at peak hours. Vehicle ownership is such that in both cases there is an element of frustrated parking demand. Leaving aside any new road works, which are not considered in this Bulletin, providing additional parking space in the town centre for vehicles approaching from the south during peak hours would simply add to the congestion on the already overloaded approach road. There is no scope for diverting traffic to other approach roads and a careful decision needs to be made whether or not the added congestion which will result from the provision of further parking space in the town centre can be accepted.
- 49. Although the south-eastern approach road is filled to capacity during peak hours, there may be scope for switching traffic to less heavily used roads. This will be considered as a normal part of traffic management, bearing in mind the effects on environment.
- 50. The percentages shown on the map, which are generally available when origin and destination surveys have been carried out, record the proportions of total parking usage which is drawn from traffic approaching its destination from each main road. In planning the location of parking spaces, particularly new offstreet car parks, there are obvious advantages in siting them as near as possible to the appropriate approach roads (consistent with the purposes the car parks are designed to serve), so as to avoid unnecessary cross-centre traffic.



3 Plan

The town centre parking map

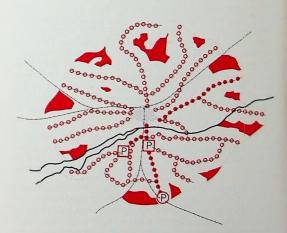
- 51. The foregoing analysis is designed to lead up to the construction of a town centre parking map, as illustrated in Map 13. The sequence is to define as follows:
 - (a) existing off-street car parks, and land to be made available for off-street parking;
 - (b) where on-street parking is to be prohibited
 - (i) at access points to buildings, loading bays and service areas;
 - (ii) to obtain visibility at road intersections, pedestrian crossings, bus stops and taxi stands;
 - (iii) on one side of street only;
 - (c) those streets where free flow is essential, at specific times such as at peak periods - Map 2;
 - (d) where only front service access to buildings is possible, and where rear service access is available Maps 2 and 3;
 - (e) where priority should be given to service vehicles and other operational parking – Map 3;
 - (f) where overnight parking for residents only is desirable Map 4:
 - (g) those areas of historic and architectural significance where special attention should be given to the detail design and layout of any parking provision - Map 4;
 - (h) the areas where very short-term parks should be given preserence, e.g., near post offices, banks, etc.;
 - (i) the areas where shoppers and visitors to offices, etc., should be given preference – Maps 1, 9, 10 and 11;
 - (j) the extent of the displacement of long duration parkers into the adjoining areas related to maximum acceptable walking distances – Maps 10 and 11.
- 52. Looking outside the town centre itself, commuter parking facilities are proposed at railway stations as shown on Map 14. Map 15, which is derived from Maps 7 and 8, shows where express and improved bus services to the town centre may be required. Initially, both outlying and intermediate car parks are proposed on the southern approach routes and intermediate car parks only on the south western approach route. These measures are intended to alleviate congestion on the southern approach road to the town centre (see Maps 5, 6 and 12) as well as attempting to limit the overspill parking into the residential areas adjoining the town centre. An express bus service without terminal car park provision is proposed along the eastern approach. This will indicate how many more commuters will use this facility in preference to using their car. This proposal could be linked with a series of experimental parking restrictions in the residential areas which adjoin the town centre so as to determine the best solution both in traffic and environmental terms. If successful, similar provisions could be made at other points in the town related to the land use and traffic proposals for the particular areas and the town as a whole.
- 53. This town centre parking plan is in no sense static; modifications can be made from time to time to meet changes in traffic demand and land use, and to accord with other changes in the comprehensive town centre plan of which it forms a part.



existing built-up areas major roads railways railway stations

commuter car parks

map 14



residential areas more than imile from 'bus stop

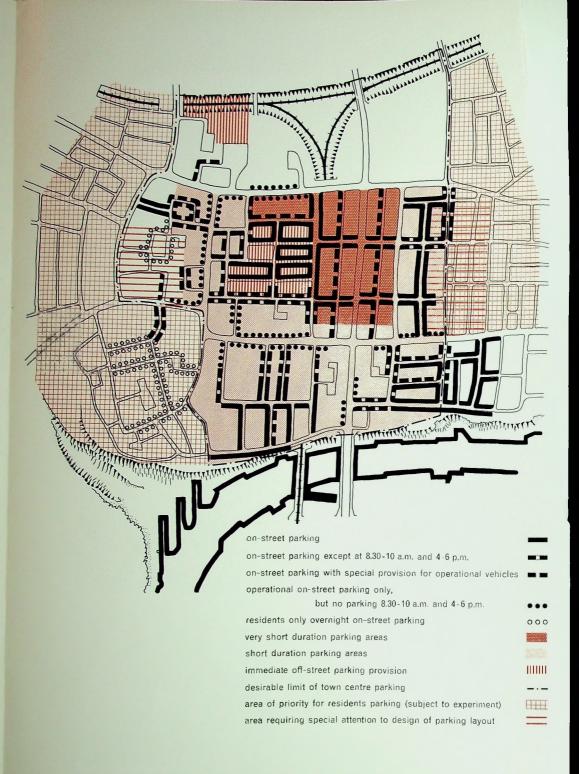
existing 'bus routes
proposed express 'bus routes
proposed intermediate car parks

proposed perimeter car parks





map 15



APPENDIX B

The preparation of a controlled parking scheme

CONTENTS

1 How a controlled parking scheme works

Signs 5

Method of control of parking space 6

Statutory Powers

Parking places for payment 8

Free parking places 11

Waiting and loading restrictions 12

2 How to plan a controlled parking scheme

Preliminary steps

Consultation 14
Parking survey 15

Size of the controlled zone 16

Hours of control 19

Time limits on parking 21

3 The detailed preparation of the scheme

Street survey 22

One-way streets 24

Motor-cycle parking areas 25

Lorry parking 26

Preparation of plans 27

4 Bringing the scheme into effect

Advertisement 29

Submission to the Minister of Transport 31

Objections 33

Setting up the zone 40

Parking meters - colour and design 42

1 How a controlled parking scheme works

- 1. Control is usually achieved by means of two complementary sets of rules. One authorises the use of parking places (free or for payment) for specified periods and subject to certain conditions. The other prohibits parking anywhere else but allows waiting for picking up or setting down goods and passengers. Depending on the powers used they may be made separately or produced as one document (see paras. 8–12).
- 2. In this way the following rules are established during the time the control is imposed;
 - (a) Vehicles may park only in authorised parking places.
 - (b) Vehicles may wait, as distinct from parking, anywhere except on the approaches to a pedestrian crossing for the following purposes only:
 - (i) for as long as is necessary to pick up or set down passengers and personal luggage; or
 - (ii) unless expressly prohibited (see (c) below) to load or unload goods (usually for a limited period unless special permission is given by the police).
 - (c) The loading or unloading of goods may be prohibited at certain points (e.g. at busy junctions and in very congested parts of streets) where the full width of the carriageway is required for moving traffic. This may be necessary only at particular times, for instance peak hours (morning or evening or both), or possibly throughout the day.
 - (d) Special parking places (usually free) may be provided for solo motor-cycles and scooters.
- 3. The aim should be to tailor the regulations as closely as possible to the needs of traffic in the controlled area, taking account of traffic conditions at off-peak as well as at peak times, so as to make the best use of road space within the area throughout the day. For instance, it may be possible to allow parking at off-peak times in parts of streets where the full width of the road is required for moving traffic at peak times. All-day loading bans should not be imposed if bans are needed only during peak hours.
- 4. Local authorities who wish to introduce controlled parking schemes should not hesitate to seek advice from the Ministry of Transport¹ on technical and procedural matters.

Signs

5. Special signs are placed at all points of entry to the area to indicate to drivers that they are entering a controlled zone. All points of exit from the zone are also signed. Within the zone carriageway markings are used to mark out parking places and cycle parks and to indicate where loading bans apply. The result is to make it clear to the driver where he can and where he cannot leave his vehicle.

Method of control of parking space

6. Advice is given in paras. 64-70 of the Bulletin about the various methods of control which can be adopted - time limits

and signs; parking discs; and parking meters. Where congestion is heavy and parking demand high the parking meter system is the most effective method.

7. Advice is also given in paras. 71–72 about enforcement. The best method of enforcing the rules in controlled parking zones is by traffic wardens.

Statutory powers

- 8. Parking places for payment. Parking places on the highway for which a charge is to be made are designated in an order made by the Minister of Transport on the application of the local authority under section 85 of the Road Traffic Act 1960² ('local authority' for this purpose is defined in section 85(4)). The charges and other provisions relating to the use of the parking places are specified in the Minister's order under sections 86 and 87. This applies whether the charge is paid in respect of a specified period at the time a vehicle is parked, e.g. by inserting coins in a parking meter or ticket-issuing machine, or is a sum payable regardless of the period for which the vehicle is left.
- 9. From 1st April, 1965, orders in respect of the Greater London area will be made by the Greater London Council.5
- 10. The designation of parking places for payment is subject to a prescribed procedure, 6 further details of which are given below.
- 11. Free parking places. Outside the London Traffic Area local authorities may authorise the use of any part of a road within their area as a free parking place under powers given to them in section 81 of the Road Traffic Act 1960. Where, however, a comprehensive scheme of parking control covering an area is involved it is necessary for the local authority to make an order under sections 26 and 81 jointly so as to obtain relief from the restrictions imposed by section 81(2). Such an order has to be confirmed by the Minister of Transport.
- 12. Waiting and loading restrictions. Docal authorities outside the London Traffic Area are given the power to make traffic regulation orders prohibiting or restricting the waiting of vehicles by section 26 of the Road Traffic Act 1960. In practice provisions that can be made under section 26 are often included in designation orders made by the Minister of Transport under section 85 of the Road Traffic Act 1960 (by virtue of section 5 of the Road Traffic and Roads Improvement Act 1960) where parking places are designated for payment; or in orders made under section 11(8) of the Road Traffic and Roads Improvement Act 1960 where the parking places are free.

In relation to Scotland, references to the Minister and the Ministry of Transport in this Appendix should be construed as references to the Secretary of State and the Scotlish Development Department.

²as extended by an order made under s. 85(8) and as amended by s. 3 and (outside the London Traffic Area) s. 5 of the Road Traffic and Roads Improvement Act 1960.

3In Scotland, s. 85(9)(b) of the Act.

4as substituted by s. 29(1), Road Traffic Act 1962.

5s. 13, London Government Act, 1963.

Schedule 10, Road Traffic Act 1960 as amended by s. 3 and 24, Road Traffic and Roads Improvement Act 1960.

In the London Traffic Area the powers, both to establish free parking places and to impose waiting and loading restrictions, are at present exercised by the Minister of Transport under s. 34, Road Traffic Act 1960 as amended by s. 8, Road Traffic and Roads Improvement Act 1960 and by s. 8 of Schedule 1 to the Road Traffic Act 1962. From 1st April 1965 the powers in respect of Greater London will be exercised by the Greater London Council by virtue of s. 10, London Government Act 1963; local authorities at present in the London Traffic Area but outside Greater London will then have the powers already available to those outside the London Traffic Area.

⁸as amended by s. 11, Road Traffic and Roads Improvement Act 1960 and s. 34, Road Traffic Act 1962.

⁹by virtue of s. 11(8), Road Traffic and Roads Improvement Act 1960.

2 How to plan a controlled parking scheme

- 13. A local authority contemplating area control of parking in the light of what is said in this Bulletin and in the foregoing paragraphs of this Appendix should:
 - (a) consult the police about the approximate area to be considered for control in the light of known difficulties of traffic movement or problem of access. Close contact should be maintained with the police through each of the successive stages;
 - (b) conduct a parking survey as described in Appendix A;
 - (c) decide in the light of the information this gives, the exact area to be dealt with and conduct any further parking surveys necessary:
 - (d) decide on the form of control;
 - (e) consider the hours when control is needed;
 - (f) decide on the time limits to be imposed on parking;
 - (g) carry out a field survey with the police in order to enable a detailed plan to be prepared;
 - (h) draw up a detailed plan and check it 'on the spot';
- (i) make any adjustments thought necessary and then advertise the scheme with a view to bringing it into effect.

Each of these steps is considered in more detail in the following paragraphs.

Preliminary steps

- 14. Consultation. Local authorities are advised to consult the police and, if they wish, the Divisional Road Engineer of the Ministry of Transport¹ at the beginning of their planning.² Consultations with the Ministry will be informal and will not commit the Minister to a view on the merits of the scheme, but will help to ensure that the final scheme will be in a form suitable for consideration by the Minister where he has to make or confirm the order. Consultation with the police is necessary because, for one thing, they will be responsible for the enforcement of the scheme and should, therefore, be kept fully informed at each stage of its development. Moreover, they will in any case have to be formally consulted later if a charge is to be made for parking (Road Traffic Act 1960, schedule 10, paragraph 1); and in the case of waiting and loading restrictions outside the London Traffic Area by virtue of procedure regulations made under section 29 of the Act.
- 15. Parking survey. Before any plans are prepared a survey should be made of parking in the area chosen to show the numbers of vehicles of various types, including motor-cycles, parked during the day and also the time, to within half-an-hour, for which each vehicle parks. It is also of assistance in supporting an application to the Minister of Transport and in explaining to the public the need for the scheme. The survey will include a street survey, details of which are given in Appendix A and referred to in paragraphs 22–23.

Size of the controlled zone

- 16. In determining the size of the controlled zone, problems likely to arise from increased parking of vehicles in streets immediately outside the controlled area should not be overlooked. If the area is too small and a charge is to be made for parking, motorists will tend to park in the peripheral streets, instead of in the controlled area. In any case, displaced motorists will be tempted to move farther out, if the distance is not inconvenient, rather than pay for off-street parking.
- 17. Zone boundaries should be reasonably straight. They should not run along the centre of a street so that one side is in the controlled area and the other is not. All approaches to a junction on the zone should be included. Boundary streets between adjoining local authorities may be included with the consent of the neighbouring authority3 for the purpose of waiting and loading restrictions or the provision of free parking places. (But in the case of parking places for payment a separate application to the Minister of Transport would have to be made by each authority). The boundary must be capable of being clearly signed for both incoming and outgoing drivers (for instance, it is unwise to place zone entry signs close to busy junctions, where turning traffic, light signals, direction signs, etc., are likely to distract the driver's attention). Where practicable, advantage should be taken of natural boundaries, e.g. rivers or railway lines, which would tend to restrict access between the controlled area and adjoining uncontrolled areas.
- 18. The size of the zone should be such that it is possible for the installation of the meters (if any) and signs, painting of carriage-way markings and all administrative arrangements to be carried out within a reasonable time (say three months) between the date the Order is made and when it comes into operation.

Hours of control

- 19. These will depend on local conditions. In Central London the present times are from 8.30 a.m. to 6.30 p.m. on Mondays to Fridays and 8.30 a.m. to 1.30 p.m. on Saturdays. In districts where shops are open on Saturday afternoons there will probably be a need for control during the whole of that day. In areas where the morning traffic builds up before 8.30 a.m. and residents use the streets to park overnight it may be desirable to start control earlier. But care should be taken to distinguish between peakhour flows on particular roads (which may deserve special attention) and problems of movement and access in the area generally.
- 20. Where charges are to be made for parking, it is not essential
- ¹In Scotland, the Chief Road Engineer of the Scottish Development Department.
- ²For schemes in London, the headquarters of the Ministry of Transport should be consulted.
- 3s.34 Road Traffic Act.

3 The detailed preparation of the scheme

for the hours when payment is due to correspond to the hours of control—there is nothing to prevent parking being confined by regulation to the parking places at times when the demand for parking space is not sufficient to justify making charges, either for the purpose of limiting the time for which vehicles may stay or for regulating demand.

Time limits on parking

21. The time limits should be chosen to give the best use of available space. Priority should be given to the short-term parker and the results of the parking survey will show the extent of the demand and the average duration of stay. In some places it may be preferable to limit parking to a very short period, say half-anhour, in the centre of a town and to extend the times in streets away from the centre. (This cannot be done conveniently if discs are used). Unless parking meters are used variations of parking periods within a zone should be kept to a minimum, as lack of uniformity is confusing for the motorist and leads to enforcement difficulties. Where parking meters are used it is possible to vary the period (or the charge) between parking places, even in the same street, and so bring supply and demand closer together but it will be necessary to distinguish clearly between meters with different time limits or having different rates of charge-see paras. 42-44. In areas where all-day parking is permitted and the demand is heavy, some short-term parking places should be provided to accommodate casual visitors, e.g. the doctor, the insurance agent or the person making a social call.

Street survey

- 22. The whole of the area must be inspected in some detail to see where parking can be permitted and where loading/unloading restrictions are necessary.
- 23. The street survey should take account of the extent to which the benefits of the scheme might be increased by including such measures as one-way working in some streets, banned turns, or special provision to deal with particular problems, for instance motor-cycle parking or the parking of heavy goods vehicles.

One-way streets

24. Consideration should be given to making some streets within the zone one-way where this would improve traffic flow or allow additional parking places to be provided without seriously inconveniencing moving traffic.

Motor-cycle parking areas

25. It is usual to provide special areas for the free parking of solo motor-cycles and scooters so as to avoid the uneconomic use of space intended for cars and goods vehicles. This is generally done by exempting solo motor-cycles and scooters from restrictions on waiting when they are parked in defined areas of the highway. The number of motor-cycles and scooters entering an area tends to increase after it is controlled. A reasonable margin should, therefore, be provided in the capacity of cycle parking areas over and above the number of motor-cycles and scooters found parked in the streets at the time of the parking survey.

Lorry parking

26. Controlled parking schemes often limit in practice the size of vehicle able to use a parking place because of the size of parking bays marked out or the definition of the class or description of vehicle authorized to park. This can be a particular problem for heavy goods vehicles near, for instance, wharves, docks or large market areas, where they may have to park while waiting to be loaded or unloaded. In the absence of adequate off-street parking for them – and until such parking is provided – it may be reasonable, having regard to other demands for the use of space on the highway, to provide some on-street parking places, subject to the same conditions as apply generally to parking in the area.

Preparation of plans

- 27. When the field survey has been completed and analysed a plan should be prepared on a scale of 1:1250. This should show?
 - (a) existing and proposed one-way streets existing ones by a black arrow and proposed ones by a red arrow;

4 Bringing the scheme into effect

- (b) proposed parking places usually coloured red. Where there are parking places within a zone giving different parking periods or, where a charge is to be made, different charges, contrasting colours should be shown for each type;
- (c) proposed (free) motor-cycle parking areas, coloured green;
- (d) lengths (indicating, where appropriate, hours which differ from the hours of control for the zone);
- (e) cab ranks, coloured brown;
- (f) sites of off-street parking places and their capacity;
- (g) streets and other areas within the zone boundaries to be excluded from the scheme, e.g. private roads; and
- (h) limits of the zone, shown in a heavy black broken line.
- 28. When this plan has been completed it should be given a careful 'on the spot' check with representatives of the police! so as to make sure that the details are right. This is also an appropriate time to consult such bodies as the local Chamber of Trade, the Automobile Association. Royal Automobile Club, Traders Road Transport Association and Road Haulage Association. Any adjustments found to be necessary or thought desirable should then be made to the plan prior to the formal advertisement of the scheme.

Advertisement

- 29. Where a scheme includes charges for parking, and after the local authority has consulted the chief officer of police and has adopted the scheme, a formal application for an order to be made should be sent to the Minister. At the same time the procedure laid down in Schedule 10 of the Road Traffic Act 19601 must be followed. This requires the local authority to:
 - (a) publish an advertisement in the London Gazette² and in the local press giving notice that it is applying to the Minister of Transport for an order under section 85 of the Road Traffic Act 1960. The advertisement must include:
 - (i) a statement of the general effect of the proposed order;
 - (ii) a list of the highways in which parking places are to be designated;
 - (iii) the classes or description of vehicles for which the parking places are to be designated;
 - (iv) the charges proposed;
 - (v) the times when the parking places may be used;
 - (vi) a statement as to where and when a copy of the proposed order and a plan of the scheme may be inspected;
 - (vii) a statement that objections in writing may be sent to the Minister of Transport within a period of not less than 28 days from the date of the advertisement.

Local authorities in the London Traffic Area should also include a statement to the effect that the Minister of Transport has also been asked to make Regulations under section 34 of the Road Traffic Act 1960 and indicating the effect of the regulations and the streets, or parts of streets, concerned. Local authorities outside the London Traffic Area should refer to section 5 of the Road Traffic and Roads Improvement Act 1960 (see para. 8);

- (b) post notices (e.g. on lamp-posts) of its intentions in the proposed controlled parking zone;
- (c) take any other steps considered necessary to bring the scheme to the notice of people likely to be affected.

30. For schemes to establish a controlled parking zone without charges outside the London Traffic Area, the local authority must first make an order and then give notice as required by the Parking Places Orders (Procedure) (England and Wales) Regulations 1961.3 In the case of schemes in the London Traffic Area the Minister of Transport will advertise.

Submission to the Minister of Transport

31. Where appropriate, a formal letter asking the Minister of Transport to make or confirm the parking places order and

¹as amended by s. 3 and 24, Road Traffic and Roads Improvement Act 1960

²In Scotland, the Edinburgh Gazette.

In Scotland, the Parking Places (Procedure) (Scotland) Regulations, 1961.

ancillary regulations should be sent at the same time as the advertisement appears in the press. The letter should state that the scheme has been adopted by the local authority and agreed by the police and, if necessary, by adjoining authorities. The following documents should be sent with the formal application:

- (a) a report on the proposals (a copy of the relevant Committee's report is often used) which should
 - (i) summarise the proposals;
 - (ii) give reasons why control is necessary;
 - (iii) give details of vehicle counts and parking survey;
 - (iv) give details of existing and proposed off-street parking facilities;
- (b) 6 copies of the plan showing the parking places, cycle parks, loading bans, one-way streets, etc.;
- (c) I copy each of the press advertisements and notices posted in the proposed zone;
- (d) 6 copies of the draft order;
- (e) a copy of a statement explaining the reasons for the scheme (see para. 33 below).
- 32. After formal application has been made to the Minister the local authority may call for tenders and make enquiries for loan consent if they wish. In the case of a parking meter scheme no work on the highway in connection with the crection of meters, signs or carriageway markings, etc., may begin until the order has been made by the Minister. All meters or other devices used, including discs, must be of a type and design approved by the Minister.

Objections

- 33. After the scheme has been advertised there follows a period of not less than 28 days during which objections to the proposals may be made. During this period the local authority should have available for inspection by the public a copy of the proposed order and a plan of the scheme (in the case of meter schemes this is a statutory requirement). Public understanding of the need for the scheme is much helped if the local authority in addition makes available a full statement of the reasons for the scheme (a copy of the relevant Committee's report to the Council is often suitable for this purpose). The next steps depend on the number and nature of the objections made.
- 34. Many objections seek concessions for particular people or particular classes of vehicle. In general these should be resisted because a system of privilege tends to destroy the equity and effectiveness of the scheme. But some exemptions command general consent and it will be useful here to indicate how some special problems are usually dealt with.
- 35. In parking meter schemes, the orders made by the Minister of Transport provide for the local authority to exempt from meter charges (and thus from the time limits) severely disabled drivers. This is particularly helpful to those who live or work in controlled areas.
- 36. Arrangements may also be made by the local authority, in consultation with the police, to provide general medical practitioners with a (temporary) space in a parking place where there is no off-street parking available at, or within a reasonable distance of, the doctor's surgery. Here, of course, considerations of human life may arise.
- 37. Parking places orders generally allow drivers the free use of unexpired time on a meter.
- 38. Orders/regulations generally provide for the use of parking places to be suspended, or for exemption from waiting or loading restrictions to be given, for such occasions as weddings, funerals, furniture removals or the loading or unloading of abnormal loads.

39. Some local authorities may feel able, where the pressure on parking space is less severe, to be more generous than others, for instance in giving exemption to the disabled. But in the interests of general understanding of the rules relating to the control of parking it is wise to keep exemptions as uniform as possible.

Setting up the zone

- 40. If, after considering all the objections, and the report of any public inquiry, the Minister of Transport approves the proposals, the local authority will be required to send 4 copies of site plans to the Ministry of Transport showing all street signs to be erected in the zone, e.g. zone entry and exit signs, one-way signs and where appropriate those indicating that particular areas are not part of the controlled zone. The Minister will then authorise the erection of the approved signs and also the necessary carriageway markings. Where parking meters are used authority for their installation will be given in the parking places order.
- 41. It is recommended that the date on which any scheme comes into force should be a Monday as this allows a final weekend for last minute adjustments. The scheme should also be well publicised shortly before it comes into operation. This can often be done by a news item in the local press or by leaflets left on the windscreens of vehicles parked in the area.

Parking meters - colour and design

- 42. As indicated in paragraph 20 above, it is clearly desirable to distinguish between meters with different time limits or having different rates of charge. The system used should be uniform so as to help motorists moving from one town to another. The Minister of Transport has consulted the Council of Industrial Design about this and has evolved a simple system using colours and figures.
- 43. Meters with a time limit of 2 hours are grey. If the maximum time available is less than 2 hours they have red instruction plates. If more than 2 hours the meters are green. In addition there should be a numeral on the carriageway side of the meter-head indicating the maximum period which can be obtained at the meter (thus 4 = a maximum of 4 hours). If no shorter alternative period is available this would be indicated by adding the word 'only' after the numeral.
- 44. The arrangement is now being reviewed to see how it might be adapted so as to give some indication of rates of charge. Local authorities will be advised as soon as any decision is made.

APPENDIX C

Statutory provisions relating to off-street parking places

This appendix is intended to serve as an index to the various powers available to local authorities and other statutory provisions in relation to off-street parking places contained in the Road Traffic Acts current at the time of the publication of this Bulletin. While it covers all the major aspects it is not exhaustive.

Principal power to provide off-street parking places.
 Section \$1(1) Road Traffic Act 1960 (Section 11(13) Road Traffic and Roads Improvement Act 1960 also refers to certain local

authorities in London).

2. Provision of off-street parking places in buildings used for other purposes (mixed development).

Section 13(1) (2) and (6) Road Traffic and Roads Improvement Act 1960 (see also Ministry of Transport Circular No. 791, or in Scotland, Scottish Home Department Circular No. R.72).

3. Temporary parking places.

Section 13(4) and (5) Road Traffic and Roads Improvement Act 1960.

4. Provision of accesses.

Section 81(3) Road Traffic Act 1960.

5. Provision and maintenance of cloakroom and other conveniences. Section 81(17) Road Traffic Act 1960.

6. Filling stations.

Sections 13(7) Road Traffic and Roads Improvement Act 1960 (but Section 13(1) also refers).

7. Acquisition of land.

Section 81(11) Road Traffic Act 1960.1

Section 13(8) and (9) Road Traffic and Roads Improvement Act 1960. (In Scotland see also Scottish Home Department Circular No. R.72).

Section 31 Road Traffic Act 1962.

8. Staffing.

Section 81(6) Road Traffic Act 1960.

9. Maintenance.

Section 81(17) Road Traffic Act 1960.

10. Letting, leasing and management.

Section 81(14) Road Traffic Act 1960.

Section 13(1) (3) and (6) (a) and Section 14 Road Traffic and Roads Improvement Act 1960.

11. Control of use (see also removal of vehicles left in contravention of a control of use order).

Section 11(2) (6) and (7) Road Traffic and Roads Improvement Act 1960.

See also Appendix A to Ministry of Transport memorandum No. 777 and Appendix A to Scottish Home Department Circular No. R.65.²

12. Penalties for contravention of non-compliance with control of use order.

Section 11(4) and (5)1 Road Traffic and Roads Improvement Act 1960.

13. Byelaws (transitional provisions).

Section 11(16) and (17)1 Road Traffic and Roads Improvement Act 1960.

14. Collection of charges.

Section 11(3) and Section 14 Road Traffic and Roads Improvement Act 1960.

15. Registering time of arrival and departure of vehicles using parking places.

Section 11(3) Road Traffic and Roads Improvement Act 1960.

16. Removal of vehicles left in contravention of control of use order. Section 11(2), Section 15 and 16 Road Traffic and Roads Improvement Act 1960 (see also Part III of Appendix A of Ministry of Transport memorandum No. 777² or in Scotland, Scottish Home Department Circular No. R 71).

17. Prohibition from plying for hire or accepting passengers for hire in a parking place.

Section 81(9) Road Traffic Act 1960.

Section 11(5)1 Road Traffic and Roads Improvement Act 1960.

18. Contribution towards cost of off-street parking places provided by other local authorities.

Section 30 Road Traffic Act 1962.

19. Arrangements with other persons to provide off-street parking places.

Section 13(6) (b) Road Traffic and Roads Improvement Act 1960

 Local Acts not affected by Section 13 Road Traffic and Roads Improvement Act 1960.

Section 13(10) Road Traffic and Roads Improvement Act 1960.

21. Definitions of 'local authority' and 'parking place' in relation to statutory provisions listed above.

Section 81(16) Road Traffic Act 1960.

Section 11(15) Road Traffic and Roads Improvement Act 1960.

Does not apply to Scotland.

²Appendix A to Memorandum No. 777 and Appendix A to Scottish Home Department Circular No. R.65 which is a model order for a street parking places order, may also be used, suitably adapted, as a model for a control of use order for an off-street parking place.

Note: Reference should also be made to Ministry of Transport Memorandum 777 which sets out in detail the powers conferred by sections 11 and 13 to 16 of the Road Traffic and Roads Improvement Act, 1960.

Selected publications

Homes for today and tomorrow

Housing is one of the major problems of our time and this report emphasises the need for designing houses to suit the needs of the modern family and ensure that they are adequate to meet the demands of the future. This should be read, not only by architects and builders, but by everyone who is thinking of building or buying his own home. **4s.** (4s. 5d.)

The Green Belts

This booklet deals with the origins, definition and implications of Green Belts. It describes how they are maintained, improved and safeguarded, and discusses the restrictions on building and the use of land in them. Illustrated.

It is extremely well prepared and well illustrated and for the modest price of 4s. is extremely good value for money... - The Local Government Chronicle.

The origin, and functions of green belts is dealt with comprehensively ... well produced... - The Surveyor.

4s. (4s. 5d.)

Caravan Parks Location: Layout: Landscape

Sites for caravan parks need careful planning if they are to fit appropriately into the landscape and afford pleasant conditions for those living in them.

By dealing individually with location, equipment, design and layout, this book shows how site owners and local authorities can achieve good results for both residential and holiday parks. Fully illustrated with photographs and text drawings.

5s. (5s. 5d.)

Prices in brackets include postage



Free lists of titles (state subject/s) are available from Her Majesty's Stationery Office, P6A, Atlantic House, Holborn Viaduct, London EC1

Government publications can be purchased over the counter or by post from the Government Bookshops in London, Edinburgh, Manchester, Birmingham, Cardiff, Bristol and Belfast, or through any bookseller

MINISTRY OF HOUSING AND LOCAL GOVERNMENT

Design bulletins

Aim to encourage closer collaboration among designers, local authorities, and all builders responsible for new buildings. Illustrated.

- No. 1 Some Aspects of Designing for Old People. 2s. 6d. (2s. 10d.)
- No. 2 Grouped Flatlets for Old People. 5s. (5s. 6d.)
- No. 3 Service Cores in High Flats:

Part 1 Sanitary Plumbing. 4s. 6d. (5s. 0d.)

Part 2 The Selection and planning of Passenger Lifts. 1s. 3d. (1s. 7d.)

Part 3 Mechanical Ventilation of Inner Rooms. 2s. 6d. (2s. 10d.)

Part 4 GPO Telephone Installations.

Part 5 Aerial Installations for Sound and Television Reception. 1s. 3d.) (1s. 7d.)

- No. 4 Swimming Pools. 2s. 6d. (2s. 10d.)
- No. 5 Landscaping for flats. 8s. 6d. (9s. 2d.)
- No. 6 Space in the Home. 5s. (5s. 6d.)
- No. 7 Housing Cost Yardstick for Schemes at Medium and High Densities. 2s. 6d. (2s. 10d.)
- No. 8 Dimensions and Components for Housing. 7s. 6d. (8s. 1d.)
- No. 9 Swimming Bath Costs. 1s. 6d. (1s. 10d.)

Planning bulletins

Designed to provide information and advice on urban development and re-development. Illustrated.

- No. 1 Town Centres Approach to Renewal, 5s. (5s. 5d.)
- No. 2 Residential Areas Higher Densities. 2s. (2s. 4d.)
- No. 3 Town Centres Cost and Control of Redevelopment. 4s. (4s. 5d.)
- No. 4 Town Centres Current Practice. 7s. 6d. (8s. 1d.)
- No. 5 Planning for Daylight and Sunlight. 5s. (5s. 6d.)
- No. 6 Development Plan Maps

Part I. Continuous Revision, Part II. The Addition of Colour. 5s. (5s. 6d.)

Prices in brackets include postage

Other titles are in preparation. Why not place a standing order and thus obtain them as soon as they become available? (£1 deposit is required from non-account customers) Binders for both series of bulletins are now available, price 10s. each. (by post 11s. 3d.)



Government publications can be purchased over the counter or by post from the Government Bookshops in London, Edinburgh, Manchester, Birmingham, Cardiff, Bristol and Belfast, or through any bookseller.

© Crown copyright 1965
Published by
HER MAJESTY'S STATIONERY OFFICE
To be purchased from
York House, Kingsway, London WC2
423 Oxford Street, London WI
13A Castle Street, Edinburgh 2
109 St. Mary Street, Cardiff
39 King Street, Manchester 2
50 Fairfax Street, Bristol 1
35 Smallbrook, Ringsway, Birmingham 5
80 Chichester Street, Belfast 1
or through any bookseller.